

# Ontario Economic Review

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Hon. Charles S. MacNaughton, Treasurer of Ontario H. Ian Macdonald, Deputy Minister







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# The Economy in 1967

Sid Dolgoy, *Editor*Ontario Economic Review

# Selected Economic Indicators



A publication of the Treasury Department – Finance and Economics Government of Ontario

Hon. Charles S. MacNaughton
Treasurer of Ontario
H. Ian Macdonald
Deputy Minister

The Ontario Economic Review is prepared and edited bimonthly in the Economic Analysis Branch of the Treasury Department (Finance and Economics). The review presents articles of interest as well as current information on economic activity in Ontario. Signed articles reflect the opinions of their authors and do not necessarily represent the views of the Department.

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# **About the Review**

This first issue of the *Ontario Economic*Review under the Treasury Department
(Finance and Economics) introduces a new look to the publication along with expanded economic coverage. A new regular feature will be the group of business cycle indicators presented in graphic form and intended to provide information for the analysis of trends in the economy.

As has been customary, the first issue of the year contains an annual review of the economy with, where possible, specific reference to Ontario.

The article appearing in this issue was prepared by Sid Dolgoy, who departs as editor of the *Ontario Economic Review* to join the Department's Economic Planning Branch.

# **Indicator Charts, Pages 14-16**

Fluctuations in aggregate economic activity—commonly used to define business cycles—do not necessarily correspond with fluctuations in the individual activities which make up the aggregate. Instead different indicators of economic activity may vary with respect to both their rates of growth and the timing of their peaks and troughs: some may grow more rapidly than others, some change direction sooner.

Those activities which tend to assume a direction in advance of the aggregate — because they relate to future rather than present production — are referred to as leading indicators, and are widely used to anticipate the short-run future course of the overall economy. The charts on pages 14-16 in the *Ontario Economic Review* present a number of these leading indicators, as well as several which are coincidental to or lag behind the aggregate, to provide for the reader an opportunity to make such an evaluation.

While comparisons of the timing and direction of general changes in the various indicators can readily be made, great care must be exercised in making such a comparison of the amplitude of fluctuations. Of the three vertical scales used – 'A' (arithmetic) and 'L1' and 'L2' (logarithmic scales with one and two cycles respectively over a given vertical distance) – only the logarithmic scales can be used to compare relative changes in different indicators. And this applies only when all series being compared are on the same logarithmic scale. In such a situation all parallel lines represent equal rates of growth, the exact rate of growth being determined by the slope of the line.

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# The Economy in 1967

Sid Dolgoy, *Editor*Ontario Economic Review

Canadians enjoyed yet another year of economic prosperity in 1967, their seventh since 1961. But the economy's performance was far from an unqualified success.

True, the economy did continue to move ard, with production, employment and inall reaching record high levels in 1967: gross national product, the total value of all goods and services produced, climbed to \$62.1 billion, a gain of 6.8 per cent over 1966; employment across the nation expanded by a full 227,000; and personal income was never higher, exceeding \$2,300 for every man, woman and child.

Yet these seemingly impressive gains begin to appear illusory when coupled with other more sobering observations. Though output passed 1966's all-time high, it did so just barely, attaining a far-from-outstanding growth rate — one much lower than in preceding years. Real growth - the percentage increase in actual volume of output – was only 2.8 per cent in 1967, a far cry from the average annual gains of approximately 6.2 per cent recorded between 1962 and 1966. Accompanying this relatively low rate of advance was a near four per cent increase in prices – perhaps the most significant single factor marring the economy's performance last year. And though employment rose bstantially, the size of the labour force inased even more, producing a higher unemployment rate in Canada.

Ontario too experienced a lower rate of growth – as, in fact, did the United States and many other industrialized nations. But the provincial slowdown was less severe than that of the entire nation, mainly because of Ontario's basic economic stability. Gross provincial product rose from \$23.1 billion in 1966 to \$24.9 billion last year, a gain of 7.8 per cent. This fell short of the 10.0 per cent gain experienced in 1966, but represented less of a drop than Canada's decline from a 10.9 per cent gain in 1966 to a less than seven per cent gain last year. While Canada's real growth rate was 2.8 per cent last year, Ontario's was 3.7 per cent. In almost all measures of economic activity, Ontario's gains exceeded those of Canada as a whole. This meant that Ontario – one of the nation's leading growth areas and one accounting for two fifths of total production - was a major contributor to the nation's overall growth.

# Ontario: A Major Contributor to Overall Economic Gains in Canada

Annual Growth 1967/66
% 0 5 10 20 30

## Labour Force



# **Employment**



# Value of Manufacturing Shipments



# Housing Starts



## Mineral Production



## Farm Cash Receipts



## Wages and Salaries



Retail Trade





# International developments: a mixture of promises and problems

The world economy faced a unique mixture of promises and problems in 1967. The conclusion of the Kennedy Round of tariff negotiations finally crystallized international agreement on wide-ranging tariff cuts, holding out the promise of fewer barriers to trade and greater international economic rationalization. The setting up of plans to create Special Drawing Rights at the International Monetary Fund was another important development, in this case promising to help establish international financial stability. (These plans took on added importance when they became a vital element in the recent battle to restore confidence in paper currency.)

Among the leading problems, the continuing British economic crisis was perhaps the most outstanding, leading as it did to the devaluation of the British pound in November. Though devaluation was an important step toward solving Britain's persistent economic ills, it did – in the short run at least – undermine the competitive position of Britain's trading partners. Fortunately Canada did not have to face the prospect of making major readjustments, principally because its exports to Britain have consisted mainly of primary products, the demand for which is inelastic and which have few substitutes.

Another problem was created by the yearend announcement that the United States intended to adopt strict measures to reduce its balance of payments deficit. While tighter control of international capital flows was recognized as a legitimate means of accomplishing this desirable goal, it did raise the possibility of added strains on the Canadian economy. Fears that the repatriation of U.S. funds in Canada would adversely affect the economy produced abnormally large sales of Canadian dollars early in 1968; these finally subsided after the U.S. government provided assurances that these funds would not have to leave Canada. This was later followed by a U.S. decision to exempt Canada from its guidelines on direct investment and lending by U.S. banks.

## Pluses and minuses in the economy

Two positive forces in particular pushed the conomy ahead last year, both in Ontario and in Canada. The first was exports – more specifically, automotive exports to the United States. Directly as a result of the Canada-United States Agreement on Automotive Products—the auto agreement—Canada's to-

<sup>&</sup>lt;sup>1</sup>That is, those countries that did not devalue at the same time.

tal automotive exports almost doubled last year. This represented the third consecutive year of phenomenal increases since the inception of the auto agreement early in 1965. By the end of last year the annual value of auto exports was actually close to 10 times what it had been in 1964, the year before the agreement. Because of these exports – and almost *entirely* because of them – Canada's total merchandise exports (including reexports) last year soared 10.5 per cent to \$11.41 billion, exceeding the ambitious \$10.25 billion target set for 1967.

The second source of strength last year was Expo. While much of the activity revolving around Expo and Canada's centennial celebrations was centred at the actual Expo site in Montreal, thousands of tourists from all provinces, the United States and overseas took the opportunity to see other parts of Canada. Ontario played host to a large number of them, earning an estimated \$600 million in non-resident tourist revenue as a result. Tourist dollars flowed in all across the country, turning Canada's usually negative balance on tourist account into a positive one in its international balance of payments. Of course tourism affected a number of different industries as well, including retail trade, wholesale trade and transportation, especially during the six months of Expo.

On the minus side there were a number of important developments overshadowing these substantial gains, perhaps the best known being the increase in prices during 1967. For the second successive year price increases were considerably higher than the usual less than two per cent gains of earlier years, although last year's increases were somewhat lower than those of 1966. These increases last year took place despite a general slackening in the growth of total output. Prices rose 3.9 per cent, double the annual gains of the early 1960's, with the largest increases recorded in the government expenditure, service and construction sectors. Government spending during the past two years was indirectly responsible for the increased prices in other sectors of the economy because it created strains in other sectors which led to rising costs and therefore spreading price increases.

But no less important was the poor productivity performance of the economy last year. With manufacturing wages rising rapidly on the one hand and weaker demand producing excess capacity on the other, labour costs per unit of output rose dramatically. For the overall economy weak demand

meant a disappointing rate of growth in real output; and with employment rising more than the volume of output, real output per employee did not increase at all.

Capital investment was another notable area of weakness, although it was not unexpected in the light of the extensive additions to capacity already made in the tremendous investment boom of the three preceding years. Sagging corporate profits, softened markets and a number of industrial disputes had a lot to do with the weakness in non-residential construction and investment in machinery and equipment. On the other hand housing construction, though still hampered by a general shortage of mortgage funds, actually made a substantial recovery in terms of housing starts last year. Mainly because of the introduction of a spring direct-lending program by CMHC, the number of housing starts in Ontario and elsewhere rose sharply in late spring and early summer (though it fell back later in the year), taking total starts just slightly higher than the level reached in 1965. However the full extent of this substantial improvement was not registered in actual investment statistics, mainly because of the very small carryover of dwelling units under construction at the beginning of the year.

## The setting for last year

In order to place developments in 1967 in their proper perspective, it is useful to look as far back as the early 1960's when the current economic expansion began. When the economy is viewed in this way, the inevitability of last year's slowdown becomes more apparent. Indeed, at this stage in past business cycles the economy has usually experienced a complete cessation of growth.

It was in March of 1961 that the national economy began to climb upward, following a period of economic stagnation in 1960. At first the high 7.1 per cent unemployment rate and abundant unused industrial capacity made rapid growth a simple matter. Throughout succeeding years, however, the supply of readily available resources diminished rapidly, and in 1965 the economy reached virtual full capacity, its growth limited to gains in productivity and in the size of the labour force.

The first significant signs of strain appeared in 1965 when price increases in the construction sector (resulting from the boom in capital investment) combined with increases elsewhere to exert noticeable inflationary pressures. The price of food – particularly becf

and pork – rose markedly in spring and again at year-end mainly because of adverse weather conditions and the cyclical movements in the supply of meat. At the close of the year the government sector also began exert a powerful influence as expendity increased sharply.

Though labour costs kept increasing during 1965, they were not as important a contributor to rising prices as were the pressures of demand. This situation began to change early in 1966. It was then that newly introduced Canada and Quebec Pension Plan payroll deductions cut into net take-home pay, adding to the easing in demand for durable goods-particularly automobiles-already evident in the last months of 1965. Fewer hours worked each week in manufacturing and greater payroll deductions led to pressures for compensation in the form of higher wage rates. These pressures, spreading to many areas of the economy, were soon translated into higher wage rates and, accordingly, higher prices. Price increases were most pronounced in the low-productivity service sector, where increases in labour costs far outstripped the very small gains in productivity.

Although goods producing industries had already begun to decelerate at the beginning of 1966, the first quarter saw the largest economic advance of the five year old econom expansion. Signs of overheating were clear evident, particularly in all three levels of the rapidly expanding government sector. The federal government subsequently postponed a variety of capital projects – but continued to operate at a deficit, introducing huge supplementary spending estimates. In order to relieve some of the pressures it brought down new tax measures, including higher personal income tax and a refundable tax on corporate profits so as to curb the investment boom and reduce domestic demand.

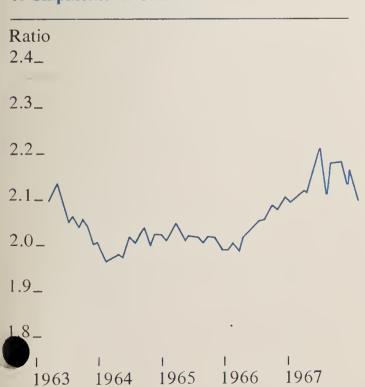
What followed, however, was a sudden and severe deceleration in the economy, one which damped consumer spending and soon afterward ended the investment boom. Unfortunately this exerted an additional – and quite powerful – restraining influence on the private goods sector, a sector which had not been responsible for the substantial price increases of previous months. With the market for consumer goods substantially weakened, slack developed in manufacturing industries and productivity consequently suffered. This, combined with continually increasing labour costs produced serious er sion of already-stricken corporate profits.

During 1966 various sectors of the economy began to lose the forward momentum built up in previous years. Fixed capital investment levelled off, manufacturing output reased more slowly and the pressures on tight labour market began to let up a like. Residential construction, already experiencing difficulties because of insufficient financing capital, plummeted in 1966. Yet wages and prices continued to mount, as has been customary at the end of modern expansions.

In spite of this levelling off, interest rates (which in earlier months had risen as economic activity soared) remained at very high levels throughout most of the year. Ordinarily such a period of deceleration with its easing of pressures might have meant a return to easier credit conditions. But this was not the case. Despite the marked weaknesses in various sectors of the economy in 1966, several factors were at work leading to tighter rather than easier credit. Probably the most important was the rapid increase in government spending. Total government purchases of goods and services jumped 17 per cent in 1966 after experiencing average annual gains of about seven per cent between 1961 and 1964. What expansion there was in the money supply was unable to keep interest rates down ough most of 1966, as the yield on three-Inth treasury bills rose to a record-high annual average of five per cent.

Another important factor was the similar trend to higher interest rates in the United States, in this case largely because of the strains imposed by the drain of resources to

# Ratio of Manufacturing Inventories to Shipments in Canada



Viet Nam. To retain the ability to attract money from U.S. capital markets it became necessary to raise the rates in Canada whenever interest rates increased across the border.

Conditions in the economy did improve toward the end of the year, though the improvement turned out to be much more temporary than might have been anticipated at the time. During the last quarter there was a modest upsurge in output, primarily because industrial disputes had reduced output and depleted inventories during the preceding quarter. At the same time concern over the tight money situation in autumn led to some easing in credit in both Canada and the United States.

# The economy lost momentum at the start of 1967...

Instead of building in strength, the revival at the end of 1966 gave way to further loss of momentum. Additions to inventory made at the close of the year, though significantly lower than they had been earlier in spring, were still excessive in the light of the continued easing in the economy. Early in 1967 shipments levelled off leaving inventories at a relatively high level. This resulted in a sharp cutback in additions to inventory for the first six months of 1967. Though there were large increases in exports, the production of durable manufactured goods, particularly motor vehicles and parts, was reduced substantially at the start of 1967 as the consumer market for durables continued to show some weakness.

In spite of flagging manufacturing production the overall Canadian economy did move ahead at the beginning of 1967, mainly on the strength of large gains in exports. The bulk of these gains, ironically, was in automotive exports to the United States as Canadian producers steadily increased their share of the total North American market.<sup>1</sup>

The actual extent of economic growth early in 1967 was somewhat exaggerated by rising prices. In real terms the increase from the last quarter of 1966 to the first quarter of 1967 was little more than one half of one per cent. But a large increase in prices pushed the gain to just under two per cent.

The generally slackened pressures of demand in the latter part of 1966 and early 1967 were responsible for a significant change in financial markets. With the money supply permitted to increase substantially, credit conditions eased and interest rates fell from

their very high levels of 1966. The yield on three-month treasury bills, for instance, fell to four per cent by April, 1967, down a full percentage point from the level of a few months earlier.

# ... substantial improvement in the second quarter

In the second quarter of 1967 real output advanced much more rapidly than it had in the first, while price increases were significantly less pronounced. The commencement of Expo did much to speed up the tempo, as the tourist account pushed exports of services considerably higher. Exports of goods on the other hand barely advanced at all: a poorer performance in lumber, wood pulp, aluminum, nickel, copper and zinc offset gains in other commodities, including newsprint, crude petroleum, natural gas and iron ore.

Another source of strength was the improvement in residential construction. After having experienced a decline for a full year, investment in residential construction, encouraged by a new spring program of direct lending by Central Mortgage and Housing Corporation, finally leaped ahead with the largest quarterly increase in years. (This development was particularly strong in Ontario.) However, investment in nonresidential construction and machinery and equipment declined, producing an overall decline in total business fixed capital investment. A large increase in government expenditure on goods and services added to the gains in the economy, as did an increase in personal expenditure, spearheaded by increased sales of autos and other durables.

# ... followed by a small decline in the third quarter

In the third quarter the upward trend in the economy was temporarily halted. While gross national product rosc 0.5 per eent, all of this gain was attributable to higher prices; in real terms the economy fell back a slight 0.5 per cent.

Declines were evident in a number of areas. There was a rather sharp cutback in government spending on goods and services as well as a continued but now more pronounced drop in the rate of business fixed capital investment. The latter decline once again reflected the unequal pull of opposing movements in the components making up the total: residential construction advanced while the rate of investment in non-residential construction and machinery and equipment de-

Seasonally Adjusted

At the start of the auto agreement private assurances were given that Canadian automotive production would increase a specific minimum amount by the end of the 1968 model year. This virtually guaranteed the continued flow of

vehicles to the United States even when sales were slack.

The Economy in 1967

clined. During this period the advance in residential construction was not as pronounced as it had been in the second quarter; in fact, with the termination of the direct-lending program the number of actual housing starts turned downward.

The moderation in government spending represented the start of a deliberate effort to curb the extremely large increase evident earlier in the year. It was this government spending that had been a leading contributor to earlier price increases.

Exports declined noticeably as well. While the export of services advanced nearly six per cent, the larger merchandise exports component fell eight per cent in the third quarter. Many of the same commodity exports which had declined in the previous quarter continued to fall in the late summer and early autumn, as did wheat, iron ore and scrap iron, newsprint and natural gas. Improvements were made in copper exports and once again in crude petroleum, where exports continued to rise as an aftermath of the Middle East war and the closing of the Suez Canal.

The two increases recorded in the third quarter aside from residential construction were inventory investment and consumer expenditure. Manufacturing production enjoyed a particularly good quarter with durables taking the lion's share of the gain. A major factor was the rise in Canadian automotive production to build up inventories in advance of the announced U.S. Ford strike. But there were other manufacturing gains as well, the two most notable being increased production of electrical apparatus and supplies and rubber products.

# ... and a small gain at year-end

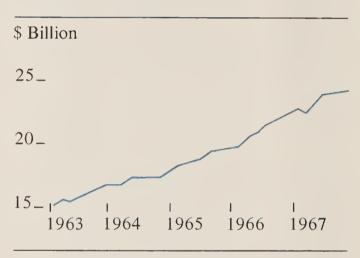
Recent National Accounts data indicate that there was an improvement in the fourth quarter, but only a very moderate one. While gross national expenditure rose one per cent in current dollars, the real gain was only 0.4 per cent. During this quarter manufacturing production improved, particularly durables, which were enjoying their second successive quarterly gain. Production of primary iron and steel was noticeably higher, spurred by increased foreign sales. Another contributor to this gain in durables was rising production of concrete products, recuperating from the effects of industrial disputes in the related construction industry. Because of the Ford strike in the United States which cut the supply of parts and forced the eventual shutdown of Ford of Canada, total Canadian motor vehicle production in the final quarter advanced only slightly while parts production declined.

Another source of strength was the recovery of merchandise exports following two rather weak quarters. Exports of primary iron and steel and electrical products both advanced, and automotive exports recovered quickly from the strike to make impressive gains toward the end of the year. On the services side, the conclusion of Expo resulted in a sharp reduction in exports of services, but an over 10 per cent gain in merchandise exports left total exports of goods and services three per cent higher in the last quarter.

While consumer spending was not as strong a force in the latter half of 1967 as it had been earlier in the year, it still remained an important contributor to the economic advance in the last quarter.

Less favourable was the progress of residential construction, which for the previous two quarters had been the main force pre-

**Total Money Supply in Canada** 



Seasonally Adjusted

## **Interest Rates in Canada**



venting total business capital investment from falling precipitously. Investment in housing declined two per cent in real terms in the last quarter, reflecting the mid-year reduction in the number of housing starts.

The resumption of non-residential construction work following months of strikes eased the declining trend in that area of construction. This was most pronounced in institutional and government construction where earlier some improvement had been noted in the number of building permits issued.

One of the most spectacular developments in the last months of the year occurred in Canada's financial markets. Although interest rates had been climbing from their low point in spring, the first increases – large as they were – were nothing compared to the increases toward the end of 1967. The rate on three-month treasury bills, down to four per cent in April, rose to 4.34 per cent at the end of August, passed the 1966 high point of 5.19 per cent early in November and then soared to just under six per cent by the end of the year. This movement, corresponding to a similar though less pronounced rise in the United States, pushed the treasury bill rate very near the seven per cent mark early in 1968.

There were a number of reasons for this severe tightening of credit. In the Unite States the use of monetary measures to culinflationary pressures resulted in rising interest rates, making it necessary for Canadian rates to rise accordingly. In Canada itself, governments sought large amounts of cash to cover expenditures while businesses acted to replenish working capital for an expected economic upturn before tight credit conditions returned. Both of these acts in themselves had an immediate effect on credit. This might not have produced quite so startling a change had it not been for a pronounced preference for liquidity on the part of investors. Rather than invest in bonds and mortgages, they sought to retain short-term liquid assets, reducing the resources available for longer-term borrowing. British devaluation late in the year also led to a sharp increase in interest rates in both Canada and the United States. The pressures upon Canada created by the announced program to protect the U.S. balance of payments kept Canadian rates rising as well.

# **Detailed Statistics**

# **Total Output**

Last year Canada's gross national product experienced the lowest increase in volume of total output since the beginning of the curt economic expansion, although this was tially masked by a continued increase in prices. Total output of goods and services rose to \$62,068 million in current dollars, an increase of 6.8 per cent over the previous year's \$55,916 million; but the exclusion of price increases – which represented more than one half of this gain – brought the real gain down to 2.8 per cent.

The pattern in Ontario was essentially the same, although the rapid growth of Ontario's automotive industry and the decline in agriculture on the Prairies both contributed to Ontario's relatively better performance. Gross provincial product rose 7.8 per cent between 1966 and 1967, from \$23.1 billion to \$24.9 billion, but the actual volume of output increased just less than half of this, or

3.7 per cent. As in the case of Canada as a whole this represented the smallest percentage increase in real output since the current expansion began in 1961. In preceding years real growth ranged between 5.6 and 7.6 per cent.

One of the notable aspects of Canada's limited real growth in 1967 was the small advance in the output of goods producing industries. Excluding agricultural output, the output of all goods producing industries rose only 1.9 per cent compared to 8.1 per cent and 7.8 per cent in the corresponding 1965/64 and 1966/65 periods.<sup>1</sup>

For the first time since 1960 service producing industries grew more rapidly than goods producing industries, their 4.5 per cent advance being attributable mainly to increased outure in transportation, retail trade, and finance, insurance and real estate. Because service producing industries usually experience only small gains in productivity,

the result has been that the overall productivity performance of the economy has not been good.

Putting together the gains in both goods producing and service producing industries, the net result has been a 3.1 per cent increase in the real output of the non-agricultural economy.<sup>2</sup> This was the lowest gain since 1961, considerably lower than the 6.7 per cent gain recorded in 1966.

As in 1966 the largest gain of all the industry groups was recorded in electric power and gas utilities, which rose 10.0 per cent. In Ontario, the statistics available indicate that Ontario Hydro provided 51.36 billion kilowatt-hours of primary energy, a gain of 6.9 per cent over 1966.

Among the other goods producing industries, the largest advances were in mining and forestry which rose 6.5 per cent and 4.1 per cent respectively. Primarily responsible for the lower overall gain for goods produc-

# Manufacturing Production in Canada

	1961	1965	1966	1967	1961 to 1965	1966/65	1967/66
				1907			1907/00
	Volume l	ndex (1949	= 100)		Annual %	Change	
Non-Durables	173.6	224.1	240.4	244.9	6.6	7.3	1.9
ods and beverages	159.1	193.1	204.9	213.2	5.0	6.1	4.1
Tobacco and tobacco products	210.0	243.4	258.1	260.8	3.8	6.0	1.0
Rubber products	158.6	237.4	258.5	255.3	10.6	8.9	-1.2
Leather products	126.9	135.2	137.9	132.1	1.6	2.0	-4.2
Textiles	152.1	220.6	233.1	234.8	9.7	5.7	0.7
Clothing	134.8	171.2	179.2	172.0	6.2	4.7	-4.0
Paper products	156.7	198.3	216.1	217.7	6.1	9.0	0.7
Printing, publishing and allied industries	180.4	223.3	239.7	249.5	5.5	7.3	4.1
Products of petroleum and coal	274.0	345.9	371.6	387.0	6.0	7.4	4.1
Chemicals and allied products	250.4	344.7	377.5	390.4	8.3	9.5	3.4
Miscellaneous manufactures	292.3	407.3	448.8	461.1	8.6	10.2	2.7
Durables	158.9	237.2	255.2	256.1	10.5	7.6	0.4
Wood products	144.9	181.7	189.2	187.7	5.8	4.1	-0.8
Iron and steel products	156.6	239.1	253.1	248.4	11.2	5.9	-1.9
Transportation equipment	138.1	250.0	273.8	286.7	16.0	9.5	4.7
Motor vehicles	156.2	347.6	372.3	392.6	22.1	7.1	5.5
Motor vehicle parts	149.1	317.2	345.6	344.3	20.8	9.0	-0.4
Non-ferrous metal products	156.3	186.9	195.7	201.6	4.6	4.7	3.0
Electrical apparatus and supplies	197.9	319.2	368.8	371.5	12.7	15.5	0.7
Non-metallic mineral products	213.2	286.9	296.3	278.0	7.7	3.3	-6.2
Total Manufacturing	166.9	230.1	247.2	250.0	8.4	7.4	1.1

Source: DBS, Index of Industrial Production.

<sup>&</sup>lt;sup>1</sup>Based on indexes of real domestic product less agriculture for Canada (1949 = 100). Real domestic product at factor cost, an elaboration of the supply side of the National Accounts, represents the sum of the unduplicated output of all industries located in Canada.

<sup>&</sup>lt;sup>2</sup>The difference between this gain and the 2.8 per cent gain in the constant dollar value of gross national product is accounted for by (i) the exclusion of agriculture (ii) the inclusion of income paid to non-residents (iii) the exclusion of income received from non-residents, and

<sup>(</sup>iv) the exclusion of "indirect taxes less subsidies." In addition there may be statistical differences between these two measures of aggregate production.

ing industries were poor performances in manufacturing, contruction and the relatively minor fishing and trapping category. While manufacturing output increased 1.1 per cent, the failure of capital investment to grow led to a 3.6 per cent decline in the output of construction industries.

In the service producing industries there was less of a spread between the largest and smallest gains experienced by individual industries. At the top of the list was a 5.7 per cent gain in transportation, the major component of the broader transportation, storage and communication group (which advanced 4.9 per cent). Second to this was finance, insurance and real estate, where a gain of 5.5 per cent was recorded. Of the other major groups, public administration and defence as well as community, recreation, business and personal service rose four per cent, while trade advanced 3.5 per cent mainly on the strength of a 4.6 per cent rise in retail trade.

# **Manufacturing**

Softening in the demand for manufactured products was clearly evident last year, in both Ontario and the nation as a whole. In Ontario, the value of manufacturing shipments rose 2.6 per cent to a level of \$19.8 billion, a gain far below the ten per cent increases of recent years. Canada's 2.1 per cent increase followed the same pattern, coming down from 9.2 per cent the year before.

As a result of the better performance in Ontario than in the rest of Canada, Ontario continued to improve its position with respect to total Canadian manufacturing. For a number of years now Ontario has slowly increased its share of total Canadian manufacturing shipments; by 1967 the province's shipments represented 52.9 per cent of Canada's total of \$37.5 billion.

Hardest hit by the general slackening in the economy was the production of manufactured durables. According to the indexes measuring volume increases in manufacturing production, non-durables expanded more rapidly than durables. Of the total 1.1 per cent gain in all manufacturing activity in Canada, non-durables advanced 1.9 per cent while durables rose 0.4 per cent. In recent years of substantial growth, it had been durables which had set the pace, advancing more rapidly than non-durables.

A number of factors were at work contributing to the weakness in durables. First there was the smaller increase in per capita disposable income which affected the demand

for products ranging from television sets to automobiles. There was the slump in construction, an aftermath of the capital investment boom (also in part due to strikes in the construction industry). Iron and steel producers were seriously affected, as output dropped below the level of 1966. Steel ingot production fell from 9,814,000 tons in 1966 to 9,551,000 tons last year, a decline of 2.7 per cent. Hardest hit were manufacturers of non-metallic mineral products, whose building material production reflected the decline in the construction industry.

The motor vehicle industry actually recorded the best gain in manufacturing output, although this represented a lower rate of increase than in previous years, particularly 1965, when gains were quite spectacular. By far the major proportion of the gains could be attributed to the auto agreement; because of it, Canadian automotive exports were maintained at very high levels, even during periods of declining automobile sales in both Canada and the United States.

The number of motor vehicles produced in Canada last year, at 947,000, represented an annual increase of 5.0 per cent. (Passenger car production rose 2.7 per cent to 721,000 units at the same time.) The output of movehicle parts, on the other hand, fell just sloof the previous year's level.

In the non-durables group, the major advances were in food and beverages, printing, publishing and allied industries and in products of petroleum and coal, all of which expanded just more than four per cent. At the other extreme were declines of similar magnitude in clothing and leather products. Rubber products also declined, but to a lesser degree, mainly as a result of a sharp first-quarter decline.

# Mining

Recovering from a small decline in 1966, Ontario's mining output soared 24.5 per cent last year, passing the billion dollar mark for the first time. Total mining output rose from \$957.9 million in 1966 to \$1,192.8 million

## **Ontario Mineral Production**

	1966	1967	Volume	Value	
	\$ Million		% Change		
Metals	732.4	962.9		31.5	
Nickel	269.5	354.9	19.0	31.7	
Copper	181.4	256.7	32.9	41.6	
Iron ore	91.7	95.2	3.2	3.8	
Zinc	24.9	79.0	231.0	217.6	
Gold	62.6	56.3	-10.1	-10.0	
Uranium ( $U_3O_8$ )	42.8	39.2	-7.3	8.2	
Platinum group	32.4	34.3	1.5	5.8	
Non-Metallics	23.7	28.7		21.0	
Salt	15.7	20.2	21.1	32.8	
Fuels	10.2	9.8		-3.9	
Natural gas	5.9	5.9	0.1	-0.5	
Crude petroleum	4.2	3.9	<b>—2.7</b>	-8.6	
Structural Materials	191.6	191.4		-0.1	
Sand and gravel	67.2	70.7	4.9	5.1	
Cement	52.7	48.1	-16.1	<b>—</b> 8.7	
Stone	33.6	36.6	-2.6	9.0	
Clay products	25.8	24.9		-3.6	
Total Minerals	957.9	1,192.8		24.5	
G	1.0				

Source: Dominion Bureau of Statistics.

Canada's \$4,273.8 million total, Ontario's mining industry enjoyed a larger annual gain than that of any other province, easily sursing even Alberta's near 18 per cent inse. Smaller increases in other provinces produced a total Canadian increase of 10.7 per cent.

The accompanying table shows the extent of change in the output of various mineral products in Ontario. The influence of price increases is visible in the disparity between increases in the volume and value of certain products.

The value of nickel production was once again the largest of any single metal, as production rose 31.7 per cent from \$269.5 million in 1966 to \$354.9 million in 1967. Copper, the second ranking metal, experienced a 33 per cent gain in volume and a 42 per cent gain in value, rising to \$256.7 million. In comparison iron ore – in third position – almost stood still; it managed a slight rise from \$91.7 million to \$95.2 million, almost totally due to increased volume. The most spectacular gain among the leading metals was recorded in zinc production, where the volume rose from 164.8 million pounds to 545.5 million pounds, and the value more than tripled from \$24.9 million 1966 to \$79.0 million in 1967. Because of a 10 per cent decline in its production, gold dropped in rank to fifth place. This represented yet another year of decline — the sixth in a row — for the ailing gold industry which has been squeezed by rising costs and a fixed price for gold. Uranium production continued to decline as well, this time by 8.2 per cent. Its value dropped from \$42.8 million in 1966 to \$39.2 million last year.

The overall gain in metals was 31.5 per cent last year, bringing the total value up to \$962.9 million — actually higher than total production of all minerals in 1966. Metals, representing over 80 per cent of the total value of Ontario's mineral production, were the major factor in the overall gain in 1967.

Though non-metals rose 21 per cent last year, the fact that they represent less than three per cent of total production has meant that this has had only a small impact upon the overall picture. Fuels, even smaller in relative size, declined from \$10.2 million in 1966 to \$9.8 million in 1967, a drop of 3.9 per cent. Structural materials, a significantly ger group than the previous two, recorded slightly reduced value of \$191.4 million last year. Though sand, gravel and stone rose

somewhat, declines in clay products, cement and lime wiped out these gains.

## Agriculture

Agricultural developments last year produced an estimated gross value of farm production of \$1.4 billion, over eight per cent higher than in 1966. Provincial farm cash receipts (excluding supplementary payments other than those paid to dairy producers) reached \$1.28 billion at the same time, up 4.2 per cent from \$1.23 billion in 1966. For the whole of Canada the increase in cash receipts was 3.4 per cent.

Ontario's field crop yields generally held up well in 1967, despite heavy July rainfalls in Western and Central Ontario and belownormal August temperatures in the southern, western and northern regions. Oats, barley, mixed grain, flaxseed, buckwheat and hay crops showed substantial increases over the 1966 yields per acre. However winter wheat, rye, dry beans, soybeans and potatoes showed declining yields.

In terms of total yields, major advances were made in barley, which rose 17.4 per cent from 11.2 million bushels in 1966 to 13.2 million bushels in 1967; mixed grain, up 11.3 per cent from 40.9 million bushels to 45.5 million bushels; and shelled corn, up 11.5 per cent from 64.8 million bushels to 72.3 million bushels. Despite a nearly 11 per cent reduction in oat acreage, oat production was down only 1.2 per cent from 1966. Potato production dropped 26.6 per cent during the same period.

Although Ontario's 210.6 million pound flue-cured tobacco crop was smaller than 1966's 215.0 million pound crop, its quality was exceptionally high, much higher than in the previous year.

Adverse weather conditions in Western Ontario affected fruit production in 1967. In spite of a substantial increase in apple production in Eastern and Northern Ontario, a poor year in Western Ontario produced an overall provincial decline of six per cent. Other fruits were down as well, including plums and prunes, sweet cherries, peaches and pears. Total plums and prunes, down 41 per cent, experienced the sharpest decline. Sour cherries increased approximately 75 per cent from the previous year's rather poor crop. Raspberries, strawberries and grapes were up as well.

Some vegetable crops, including processing tomatoes, sweet table corn, lettuce and bunching onions were somewhat larger than in 1966, while celery, green and wax beans, and radishes were lower. Asparagus showed little change.

Average prices received by farmers for farm products were generally better than in 1966. The estimated total value of fruits increased by about five per cent and that of vegetables by about 10 to 12 per cent.

In livestock, the price of good steers at Toronto increased from a range of about \$24.50 to \$27.50 per hundredweight in 1966 to a range of about \$26.50 to \$29.00. There was a slight decline in the number marketed. Hog prices (dressed, no. 1) dropped from about \$42 to \$33 in the same period; volume increased approximately 17 per cent.

## **Forest-Based Industries**

Because of weakened U.S. demand for pulp and paper and a general slowdown in construction activity in both Canada and the United States, only isolated gains were recorded in the forest-based industries in 1967. Value of production remained close to the level of the previous year, while overall volume was down slightly from the record level of 1966.

Rapidly rising capacity in the newsprint industry and more slowly rising demand – exports to the United States suffered because of increased production in that country brought about a condition of surplus capacity during the year. Whereas Canadian newsprint capacity utilization was 95 per cent in 1966, last year it declined to 87 per cent. Rated capacity in Ontario, approximately 2,000,000 tons in 1966, rose to more than 2,100,000 tons while output declined from 1,801,000 tons to an estimated 1,740,000 tons. Consumption in Ontario rose 5.5 per cent to an estimated 210,000 tons in 1967. To ease the oversupply situation a number of mills put into effect production cutbacks at various times throughout the year. In response to rising production costs newsprint prices were increased at mid-year by \$3.00 a ton, equal to approximately two per cent of the domestic price and less than the price increase recorded in the previous year.

The value of shipments in the pulp and paper industry, estimated at \$638 million, was up just more than one per cent from 1966. Paper (other than newsprint) and paperboard production rose by 25,000 tons from the 1,275,000 tons recorded in 1966.

Wood pulp production dropped from 3,589,000 tons to 3,559,000 tons over the same period.

Private and Public Investment in Ontario, 1966 and 1967<sup>1</sup>

	Construct	ion		Machiner	and Equipr	nent	Total Cap	oital Expendi	tures
	1966	1967	67/66	1966	1967	67/66	1966	1967	67/66
	\$ Million		% Change	\$ Million		% Change	\$ Million		% Chan
Primary industries and									
construction industry	197.5	176.6	-10.6	308.5	305.1	-1.1	506.0	481.7	-4.8
Manufacturing	389.4	323.8	-16.8	1,030.7	899.9	-12.7	1,420.1	1,223.7	-13.8
Utilities	410.5	377.3	-8.1	425.5	477.7	12.3	836.0	855.0	2.3
Trade, finance and									
commercial services	280.5	288.5	2.9	270.3	278.0	2.8	550.8	566.5	2.8
Housing	875.5	921.4	5.2				875.5	921.4	5.2
Institutional services and									
government departments	935.2	1,072.8	14.7	137.8	142.6	3.5	1,073.0	1,215.4	13.3
Total	3,088.6	3,160.4	2.3	2,172.8	2,103.3	-3.2	5,261.4	5,263.7	0.04

1 1966 data actual; 1967 preliminary actual.

Source: DBS, Private and Public Investment in Canada.

Pulpwood consumption rose only fractionally, from 340 million cubic feet of roundwood in 1966 to an estimated 346 million cubic feet last year. Because of low levels of construction activity, lumber production declined from 773 million board feet in 1966 to an estimated 735 million board feet.

# **Capital Investment**

After three years of very sharp gains, capital spending in Canada fell off last year and virtually stopped expanding. The existence of excess capacity at the end of 1966, the virtual completion of Expo construction and an uncertain business climate all combined to curtail its growth, thereby damping the overall growth in the economy. The value of private and public investment edged from \$15.09 billion in 1966 to \$15.17 billion last year, a scant increase of 0.6 per cent; but the rise in prices alone was far greater than this, indicating an actual decline in real investment.

Ontario's capital investment followed basically the same trend. What had been one of the major engines of growth between 1963 and 1966 was last year one of the major weaknesses in the economy. According to the Dominion Bureau of Statistics, total private and public investment in Ontario remained relatively stable at \$5.26 billion, a little more than one third of the Canadian total. The scant 0.04 per cent gain experienced was made up of a 2.3 per cent rise in construction and a 3.2 per cent decline in investment in machinery and equipment. In actual dollar

terms construction was the larger component, getting six out of every ten dollars invested in Ontario.

Private investment alone was also quite weak across Canada, declining one per cent in current dollars and 3.3 per cent in constant (1957) dollars. Government spending was fairly strong in the first half of 1967 and exerted pressures on prices, but moderated somewhat in the latter half of the year.

Clearly the major weakness in Ontario last year was in manufacturing industries, where a 17 per cent decline in the value of construction combined with a 13 per cent decline in investment in machinery and equipment to produce an overall decline of 14 per cent. Similar declines were recorded in other regions of Canada except the Prairie Provinces where investment in manufacturing rose substantially.

One large manufacturing group, transportation equipment, experienced an 18 per cent decline last year, mainly as an aftermath of the heavy construction activity which came with the start of the Canada-United States auto agreement. Chemicals and chemical products, another large group, also declined; this particular decline of about one third was made up of a 50 per cent drop in construction and a 26 per cent decline in investment in machinery and equipment. Investment in primary metals fell off 18 per cent because of a sharp drop in purchases of machinery and equipment. But construction in that industry rose one third, mainly on the strength of new and expanded production facilities in areas around Sudbury and Timmins.

Only one manufacturing industry – petroleum and coal products – showed a substantial increase in capital expenditure, rising 10 per cent. The only other group to advance was machinery producers, in this case by 1.5 per cent. Of the remaining manufacturing industries those showing the largest declines were clothing and knitting mills, produce of chemicals and chemical products, printing, publishing and allied industries, rubber industries and wood industries.

In the broad groups outside of manufacturing there were notably higher capital outlays in institutional services and government departments, as well as smaller increases in housing, trade, finance and commercial services and utilities. Greater expenditures on universities, schools and hospitals were largely responsible for the rise in the first group, while capital outlays by Ontario Hydro of well over \$200 million helped increase investment in utilities.

Primary industries and the construction industry declined nearly five per cent from the previous year.

Another indicator of capital investment – the value of building permits issued – showed that investment intentions in Ontario were no more promising than actual outlays. Despite rising prices, the value of permits for both industrial and commercial construction projects was down substantially from 1966. Industrial permits were valued at \$200 million, a drop of 29 per cent, while commercial permits at \$279 million were 15 per cent

# **Dwelling Starts in Selected Ontario Centres**

	19651	1966²	1967 <sup>2</sup>	1966/65	1967/66
	Number			% Change	
nto	32,506	22,155	32,038	-31.8	44.6
Hamilton	4,519	4,201	5,508	<b>—</b> 7.0	31.1
Ottawa-Hull	5,051	4,436	3,708	-12.2	-16.4
Kitchener	2,820	2,432	3,198	-13.8	31.5
London	2,466	1,936	2,812	-21.5	45.2
St. Catharines	1,308	1,060	1,401	-19.0	32.2
Windsor	1,523	1,365	1,290	-10.4	<b>—</b> 5.5
Guelph <sup>3</sup>	586	504	948	-14.0	88.1
Sudbury	309	394	884	27.5	124.4
Oshawa	2,164	991	814	-54.2	-17.9
Sarnia	565	693	717	22.7	3.5
Niagara Falls	292	399	667	36.6	67.2
Brantford	613	431	494	-29.7	14.6
Sault St. Marie	325	414	456	27.4	10.1
Welland	n.a.	287	428	n.a.	49.1
Peterborough <sup>3</sup>	298	247	400	-17.1	61.9
Kingston	1,203	651	384	-45.9	-41.0
Ft. William-Pt. Arthur <sup>3</sup>	525	476	376	<b>—</b> 9.3	-21.0
Timmins	111	69	69	<b>—37.</b> 8	0.0
Urban Ontario <sup>4</sup>	59,318	45,714	59,761	-22.9	30.7
Total Ontario	66,767	52,355	68,121	-21.6	30.1

<sup>1</sup> Data based on 1961 Census Area definitions.

2 Pata based on 1966 Census Area definitions.

entres where number of starts affected by change in Census Area definition.

<sup>4</sup> Total, centres of 10,000 population and over. Source: CMHC, Canadian Housing Statistics.

lower than the previous year. The remaining non-residential category – institutional and government permits – was the only one of the three to rise. Valued at \$513 million, these permits were up 13 per cent from 1966.

Attention last year was riveted on housing, where activity represented both a recovery and a continuing problem. The problem was actually a long-standing one, going back to 1966 when the number of housing starts in Ontario — and in Canada — plummeted below the 1965 level. In 1967 there was a marked recovery; but the need for housing remained acute.

The basic problem for several years has been the lack of mortgage funds to finance housing construction, with mounting costs, particularly of land, an added problem. Though this problem existed for a number of years it reached a peak in 1966 when the number of housing starts fell to 52,355 from 767 the year before – a drop of 22 per cent. In 1967 the number of starts rose again, but only slightly above the level of

1965. The number of starts reached 68,121 for all areas of Ontario, representing 42 per cent of the Canadian total of 164,123 units.

This nearly one third increase in housing starts is attributable primarily to the efforts made to provide capital. Central Mortgage and Housing introduced a spring program of direct lending and the results were felt immediately; in the second quarter the number of starts soared. This spurt carried over into early summer, but the removal of the stimulus and the absence of a fall program brought about a decline in subsequent months.

The dollar value of private and public investment in housing, after having risen 9.1 per cent in 1966 to a value of \$876 million, due both to the large carryover of house-building begun in 1965 and to rising prices, advanced to \$921 million in 1967, a gain of 5.2 per cent. Essentially, the reason for the lower gain in housing investment in 1967, despite a higher number of starts last year was the absence of a large carryover at the end of 1966. While there were 58,000 units

under construction at the end of 1965, at the end of 1966 the number was only 39,000. By the end of 1967, after construction had picked up for several months in the middle of the year, the number of units under construction had returned to 49,000. Completions in 1967, at slightly more than 58,000, were still substantially less than the 68,000 completions recorded in 1966.

# Foreign Trade

Like the year before, 1967 was notable for the impressive performance of exports. Unlike 1966, however, this represented one of only a scant few bright spots in the economy. It was therefore a particularly important factor accounting for much of what growth there was in the Canadian economy.

Even with the strong upward push in exports, Canada's favourable merchandise trade balance narrowed due to the slightly higher rate of expansion in imports. Total merchandise exports (including re-exports) rose to \$11.41 billion in 1967, a gain of 10.5 per cent, while imports climbed 12.3 per cent to a record \$11.08 billion. This reduced the export balance to \$330 million from \$459 million in 1966.

Although the 10.5 per cent increase in exports was considerably lower than it had been a year earlier, the lower overall rate of growth in the economy meant that exports represented a large share of total output in 1967.

Exports proved to be a major driving force in the economy even though wheat exports declined by almost one third. What enabled Canada to reach and surpass its \$11.25 billion export target was the continued spectacular growth of automotive exports, a direct result of the Canada-United States Agreement on Automotive Products. Last year these exports almost doubled. (In the preceding year they nearly tripled.) Since the auto agreement came into effect early in 1965 the impact upon total exports has been phenomenal. In 1964 – the year before the agreement – motor vehicle and parts exports represented a scant 16 per cent of Canada's fully manufactured non-food exports; in 1967 they were over 55 per cent of this total, at a value of \$1.7 billion.

Were it not for automotive exports, the more than 10 per cent increase in domestic exports would instead have been three per cent.

Ontario, which in 1965 accounted for one third of Canada's total exports, has played a

crucial role in the rise in foreign sales. In 1966 Ontario was responsible for one half of the increase in exports; in 1967 Ontario accounted for over 90 per cent of the annual increase, mainly because the bulk of Canada's manufacturing output originates in Ontario.

Large increases in automotive exports have meant large increases in exports to the United States. The growth in exports to the United States was almost double Canada's over 10 per cent rate of increase in total exports. Sales to the United Kingdom advanced 4.1 per cent while exports to all other countries dropped slightly below the level of 1966.

Though automotive exports held the spotlight there were other increases last year. Aircraft exports, a group that fluctuates widely because it is closely related to specific defence arrangements, rose to \$183 million, a gain of 55 per cent. Together with automotive exports these two large groups figured significantly in the 47 per cent increase in exports of inedible end products or fully manufactured non-food products. Crude petroleum and copper and alloys were both about one quarter higher last year while iron ore and concentrates, aluminum including alloys, softwood lumber, and wood pulp and similar pulp were up moderate amounts ranging from four to eight per cent.

The one major export to decline was newsprint which suffered a 1.3 per cent decline. Nevertheless newsprint exports last year, at \$955 million, were second only to the auto-

motive group of exports, after having ranked third behind wheat and motor vehicles and parts in 1966.

Imports last year jumped ahead 12.3 per cent primarily because of a 20 per cent increase in inedible end product imports from the United States. Almost three quarters of Canada's total imports came from the United States; and as in exports, much of this was related to the automotive industry. Out of the \$8.0 billion total value of imports from the United States, \$2.2 billion represented motor vehicles and parts imports. Total imports from the U.S. rose 12.4 per cent in 1967.

Imports from the United Kingdom were affected by that country's dock strike and economic difficulties. A below-average 4.4

per cent increase in our purchases brought the value up to \$673 million. On the other hand, imports from all other countries rose 14.4 per cent to \$2.4 billion, the result of a significant rise in inedible end prod imports.

Although the levelling off in capital investment was responsible for an unchanged level of machinery imports, other manufactured imports rose last year. Among them were aircraft and parts, communications equipment and a variety of personal and household goods. Crude and fabricated materials did not grow to any significant extent, although isolated products like crude petroleum and certain crude non-metallic minerals were somewhat higher.

**Total Motor Vehicle and Parts Exports** 

	1966	1967	1967/66
	\$ Million		% Change
Passenger automobiles and chassis	429.6	879.4	104.7
Other motor vehicles	173.3	326.7	88.5
Motor vehicle engines and parts	137.9	158.9	15.3
Motor vehicle parts, except engine	252.9	365.1	44.4
Total	993.6	1,730.1	74.1

Source: DBS, Summary of Exports.

# Canadian Domestic Exports, 1964-1967

	1964	1965	1966	1967	65/64	66/65	67/66	
	\$ Million				% Change			
Commodity Group:								
Live animals	34.5	79.1	78.0	42.3	129.3	-1.4	<b>—45.8</b>	
Food, feed, beverages and tobacco	1,805.9	1,629.8	1,888.3	1,602.3	<b>—</b> 9.7	15.9	-15.1	
Inedible crude materials	1,616.1	1,763.7	1,947.6	2,108.3	9.1	10.4	8.2	
Inedible fabricated materials	3,502.5	3,728.8	4,012.1	4,229.6	6.5	7.6	5.4	
Inedible end products	1,109.0	1,300.1	2,119.3	3,106.8	17.2	63.0	46.6	
Special transactions — trade	26.2	23.5	25.3	22.5	-10.2	7.7	-11.2	
Geographic Group:								
United States	4,271.1	4,840.5	6,027.7	7,079.4	13.3	24.5	17.4	
United Kingdom	1,199.8	1,174.3	1,122.6	1,169.1	-2.1	-4.4	4.1	
All others	2,623.4	2,510.3	2,920.3	2,863.4	-4.3	16.3	-2.0	
Total	8,094.2	8,525.1	10,070.6	11,111.8	5.3	18.1	10.3	

Source: DBS, Summary of Exports.

## Finance

What was perhaps the most dramatic development between the beginning and end of 1967 took place in capital markets.

mic activity in the latter part of 1966, central banks around the world cut their bank rates and moved to increase their money supplies. Following U.S. leadership, central banks of no less than eight countries participated in an 'easy money' policy. Germany, the first to act in early January, was soon followed by other countries, some of which went on to make two, three and four successive reductions in following months. The United States reduced its rate a second time on April 7 with Canada soon following with a corresponding cut.

An exorbitant demand for money was the unexpected result. Businesses acted to replenish working capital in anticipation of a greater demand for goods and services, while governments sought large amounts of cash to cover expenditures. Consequently money rates rose steadily throughout the year reaching record high levels.

Total new bond financings, with maturities of over two years, totalled \$6,620.2 million in 1967, some 2.2 per cent more than the \$6,479.5 million raised in 1966. Of this ess than \$2,907.9 million (or 44 per cent of 1967's total) was sold in the final three months of the year. Government of Canada borrowings made up the largest portion of this increased borrowing: whereas Government of Canada medium and long-term borrowings amounted to only \$1,160 million at the first of October, by year-end they totalled \$3,174 million. While the year-end total included the 1967 sale of Canada Savings Bonds, it is significant that no less than \$750 million or 39 per cent of the year's \$1,935 million new Canada bonds<sup>1</sup> came to the market in October and December. The need for the government to be especially active in acquiring new funds – \$258 million more in 1967 than in 1966 – reflected a lower-thanexpected sale of Canada Savings Bonds as investors turned to more lucrative investments. A substantial portion of the year's borrowing was offered in the form of short-term maturities in keeping with the market's tendency to be more receptive to this type of financing during periods of high interest rates.

An increase in the demand for funds was rethe only reason that interest rates climbed layear. Investors were cautious for several reasons: the Carter report on taxation,

Quebec separatist sentiments, Viet Nam, Middle East unrest, sterling devaluation, pressures on the dollar and inflation.

Of these issues, inflation was one of the more important. In 1967 both the Canadian and the U.S. governments moved to curb inflation by proposing tax increases on personal income and urging business to contain price and wage demands. The tax proposals originally came at a time when business economists were voicing the need to stimulate the economy, and thus the proposals – particularly for higher taxes – met with opposition. In the U.S. the increase in taxes was not realized as controversy continued over how much government spending should be cut. The Federal Reserve Board meanwhile moved toward monetary restraint while awaiting fiscal discipline.

In Canada the response was more immediate. The Bank of Canada, following the U.S. Federal Reserve Board's action, pursued tighter money and credit policies. In addition the Canadian Government announced cutbacks in government expenditure and proposed a moderate increase in personal income taxes.

One of the most important developments was the mid-November devaluation of the pound sterling with the subsequent reduction in the currency values of some 18 countries. Investors increased their gold purchases in the weeks following the sterling crisis, and this in turn led to speculation against the U.S. dollar as well. Although there were fears that the devaluation of the pound would exert some pressure on the Canadian dollar, the consensus was that it could be tolerated. This proved to be true. During the year the Canadian dollar had been very strong and was quoted at levels close to the maximum level (US 93½ cents) permitted under agreement with the International Monetary Fund. Following the devaluation of the pound, the value of the Canadian dollar did ebb for the balance of the year, but only to levels still above its mean value of US 92½ cents.

Inflation affected investors, particularly the large and sophisticated financial institutions, luring them away from fixed income investments in favour of equity commitments. This preference, at the expense of bond market investing, served only to exaggerate the swing towards higher interest rates and placed much more emphasis upon capital appreciation.

Institutional investors showed a distinct preference for equities of U.S. corporations, particularly those listed on the New York and

American stock exchanges. There were two main reasons for this: investors wanted to acquire fast growth issues such as those linked to the space and technology industry, and they had to invest on a large scale. The institutional investor, unlike the individual, invests in an attractive stock only if there is an opportunity to make a substantial investment — and if there is an assured market for the stock should he decide to sell. The degree of marketability in Canadian stocks, except among the best-known issues, is often limited for these investors' purposes.

As a consequence, the number of shares traded on Canada's six exchanges declined to 1.5 billion from 1.7 billion in 1966. The Toronto exchange accounted for 54 per cent of this as well as 68 per cent of the total value. On the other hand, trading activity in the U.S. far exceeded that of any previous year. United States as well as foreign-based institutional investors accounted for a large portion of this volume, turning over their portfolio positions at a very high rate. The attempt to out-perform one another was so intense that institutions were warned on several occasions not to speculate excessively.

The year as a whole, however, turned out surprisingly well with industrial equity prices in both the U.S. and Canada advancing roughly 10 per cent despite the numerous problems in business and in the economy. Prices recovered from the declines of 1966, a year in which investors had sold stocks sharply lower in anticipation of a slowdown. In 1967 this slowdown materialized and the market then looked forward to a recovery.

The Dow-Jones Industrial Index (reflecting NYSE price changes) closed 1967 at 905.11, up 119.42 points from 785.69 at the close of 1966. The Toronto Stock Exchange industrial average closed at 162.28 (based on 1956=100) for a 15.48 point gain on the year. In our domestic markets, Gold and Western Oils closed at particularly higher levels. Golds soared in November as devaluation of the pound stirred speculation about an increase in the price of gold. Oil discoveries in the Rainbow area of Northwestern Alberta raised speculators' hopes, and oil issues rose with them.

## **Employment**

The pressures on the tight labour market, so obvious in recent years, eased somewhat in 1967 as the pace of the economy slowed.

The expanding population of Ontario, including an inflow of 117,000 immigrants from

other countries, sharply increased the labour force last year. Rising to 2,834,000 from 2,719,000 in 1966, Ontario's labour force expanded by 115,000 – or 4.2 per cent – surpassing 1966's substantial gain of 105,000.

Unfortunately the reduced pace of the economy did not permit complete absorption of the new entrants to the labour force. Employment rose 3.6 per cent to 2,745,000, an increase of 95,000 from the previous year. Consequently the unemployment rate rose from the very low 2.5 per cent level of the two immediately preceding years to 3.1 per cent last year.

In comparison with other areas of Canada, Ontario's employment picture was quite good. While labour force in Ontario rose 4.2 per cent, in all other provinces combined it was up only 3.4 per cent. Employment rose 2.9 per cent outside Ontario, compared with 3.6 per cent in the province. This resulted in a 4.7 per cent unemployment rate in the rest of Canada as opposed to 3.1 per cent in Ontario.

Canada's total labour force thus rose 3.7 per cent to 7,694,000 while employment reached 7,379,000, a gain of 3.2 per cent from the previous year. Nationally the unemployment rate was 4.1 per cent.

Estimates of employees in various major industries in Ontario reveal that the largest increases in employment were recorded in the service sector, particularly finance, insurance and real estate, where the increase ranged around seven per cent. Other service industries advanced at a slightly lower rate, but this was still higher than most goods producing industries. The one goods producing industry to expand significantly – by four per cent – was mining, but this was due to the fact that employment in 1966 was cut sharply because of a strike at the International Nickel Company of Canada. Strikes were important in the construction industry as well, but in this case they affected 1967 statistics and contributed to a less than one per cent increase in the number of employees. Of course the economic deceleration was an important contributor to the small increase as well.

The impact of this deceleration was most keenly felt in the large manufacturing sector last year. Employment there remained steady, with a small increase in non-durables industries slightly outweighing a fractional decline in durables producing industries. In forestry, employment increased less than one per cent.

The greater increase in activity in service industries was responsible for yet another development. Of the 115,000 additional indivi-

duals entering Ontario's labour force, more than one half were males (60,000 as opposed to 55,000 females); but because employment expanded more rapidly in service industries – which employ a larger-than-average proportion of women – more new jobs were filled by females. Of the 95,000 additional jobs filled, 50,000 were filled by women, 45,000 by men.

## Income

Unlike many of the other indicators, incomes did not reflect the moderation in economic activity last year, but continued to rise briskly. Personal income in Ontario reached an estimated \$18.5 billion, 9.5 per cent higher than the \$16.9 billion record in 1966. And per capita personal income in the province approached \$2,600, an increase of between six and seven per cent from the \$2,431 recorded in 1966.

The major portion of Ontario's total personal income was accounted for by wages and salaries, which rose to \$12.7 billion last year, up 9.2 per cent from \$11.6 billion the year before. The combined effects of strikes,

wage settlements and varying degrees of activity in the different provinces produced a national gain of 9.4 per cent, with total wages and salaries rising to \$30.8 billion in 1967.

These factors accounted for differe in average weekly wages and salaries as well. In Ontario the largest increases were in forestry, mining and transportation, communication and other utilities, all increasing more than 10 per cent. Gains in other industries ranged between five and seven per cent, with the increase for the industrial composite reaching approximately 6.5 per cent.

Construction retained its position as the leading industrial group in average weekly wages and salaries, paying an average of slightly more than \$132 to the 85,000 employees included in the statistical survey. Mining was close behind at \$128, followed by forestry at \$124. However wages and salaries in other sectors, particularly in the service sector, brought the industrial composite down to approximately \$106 last year.

**Changes in Implicit Price Indexes of Gross National Expenditure** 

2	
	•
3.5	3.3
4.1	1.9
0.0	2.6
3.2	2.2
6.2	0.1
1.9	3.3
3.9	5.7
5.9	6.2
3.8	2.3
6.0	7.2
5.4	5.0
2.1	-1.8
3.2	1.7
2.0	1.2
4.5	3.9

Source: DBS, National Accounts.

# Canada, Ottawa, and Toronto 1967/1966 % -1.0 02.0 4.0 6.0 All Items Food Housing Clothing Transportation Health and Personal Care Recreation and Reading Tobacco and Alcohol Canada Ottawa Toronto

Per Cent Changes of Consumer Price Indexes

## **Prices**

The concern over rising prices which grew from a minor complaint in 1964 to a major worry by 1966 was relieved only slightly in 1967. For the second successive year price increases were fairly large, last year accounting for the major portion of the rise in gross national product.

According to implicit price indexes of gross national expenditure, prices were 3.9 per cent higher in 1967 than in 1966. The corresponding increase one year earlier had been 4.5 per cent, and 3.0 per cent the year before that.

Unlike earlier years when price increases were largely the result of excessive demand, increased prices last year were mainly due to rising costs, in particular rising wages. The largest increases came in the housing, government expenditure and service sector, with gains ranging roughly between six and seven per cent. The accompanying table shows the extent to which these pressures have built up over the past few years. In other areas the pressures subsided somewhat, leaving fairly moderate price increases. Some obvious examples are non-durable goods (especially food) and new machinery and equipment. The smaller increase in export prices was helpful in Canada's constant struggle to remain competitive in world markets.

Looking at the consumer price index, the other important measure of price increases in the economy, the overall increase for all items was 3.5 per cent from 1966 to 1967. The tendency of gains to be concentrated in service items rather than goods was apparent here too as commodity prices rose a modest 2.6 per cent while services soared 5.3 per cent. Clothing was the only major goods item to experience a sharp increase last year.

On a regional basis, the two Ontario centres covered by the survey – Ottawa and Toronto both experienced smaller price increases than the national average. Both advanced less than three per cent compared with Canada's 3.5 per cent price increase. Only in three specific instances was there a larger increase in either Ottawa or Toronto. In the transportation component increased local fares in Toronto raised that city's gain above the 4.2 per cent national increase. Ottawa surpassed Canada in the recreation and reading component because of an increase in the price of newspapers early in the year; it also edged ahead in the tobacco and alcohol category last year.

## Retail Sales

Ontario's retail sales remained reasonably buoyant last year, rising 5.1 per cent to \$8.9 billion. Though this increase did not match the 6.1 per cent gain recorded in 1966, it was nevertheless quite substantial in view of the decline in the market for consumer durables. Moderately higher prices and significant tourist sales undoubtedly contributed to the increase.

Tourism was an important factor increasing sales elsewhere in Canada as well. With Expo and the Pan-American Games attracting large numbers of visitors to Quebec and Manitoba, Canada's overall retail sales rose to \$23.4 billion, 6.0 per cent higher than the previous year.

In Ontario the sharpest increase for the year was in variety store sales, a relatively insignificant group accounting for only three per cent of total sales in the province. This group advanced over 11 per cent.

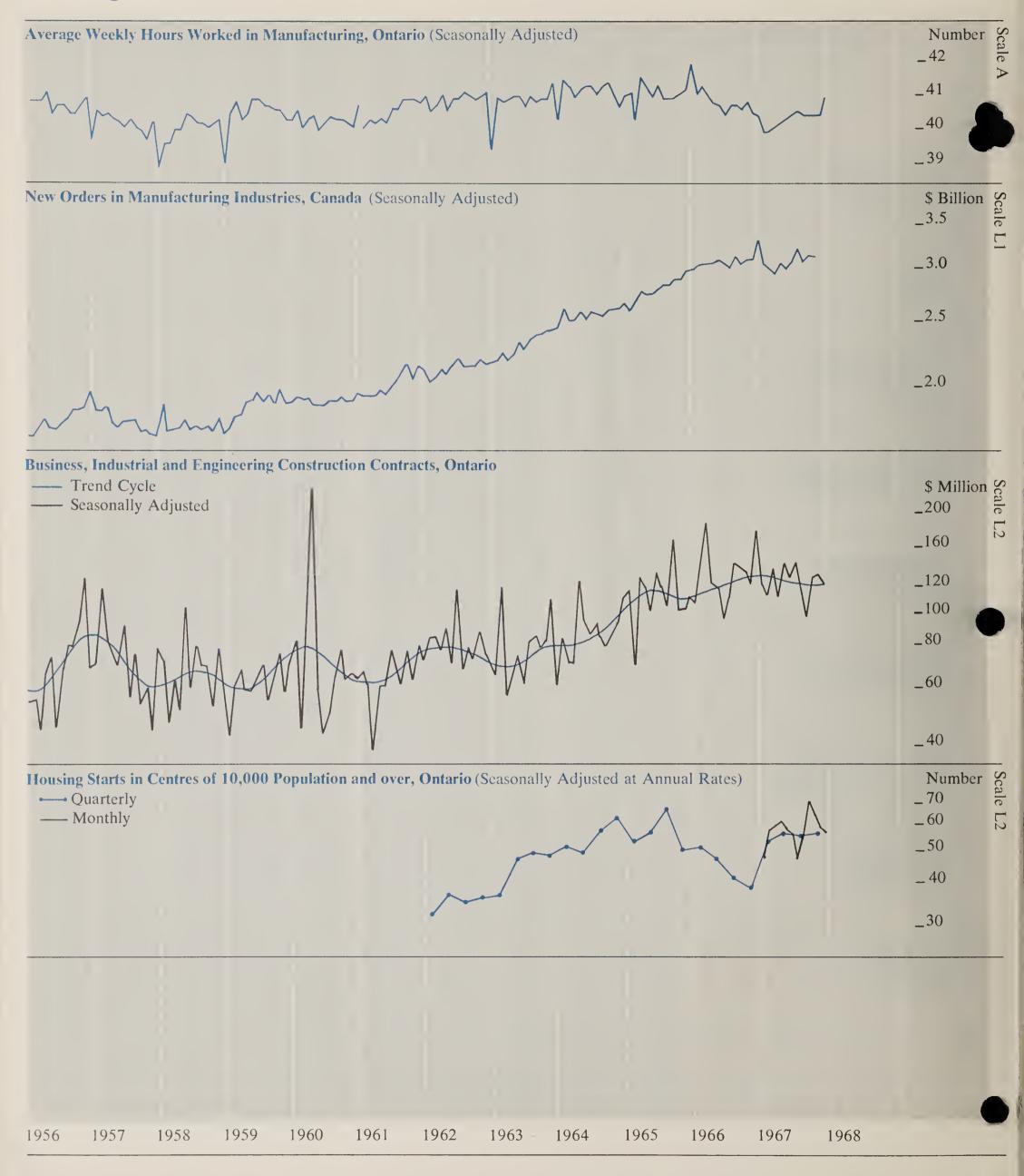
The performance of the major retail groups varied considerably last year. Sales in grocery and combination stores, which have grown at a fairly steady rate as population has expanded, advanced just over five per cent, almost the same as the year before. Department store sales, increasing at a rising rate throughout most of the year, ended with an annual gain in excess of seven per cent, somewhat better than the 5.7 per cent gain recorded in 1966.

The only category to decline last year was motor vehicle dealers, the second largest group of retailers, accounting for close to 17 cents out of every retail dollar. This group followed up a weak gain in 1966 with an even weaker performance last year, declining by close to one per cent.

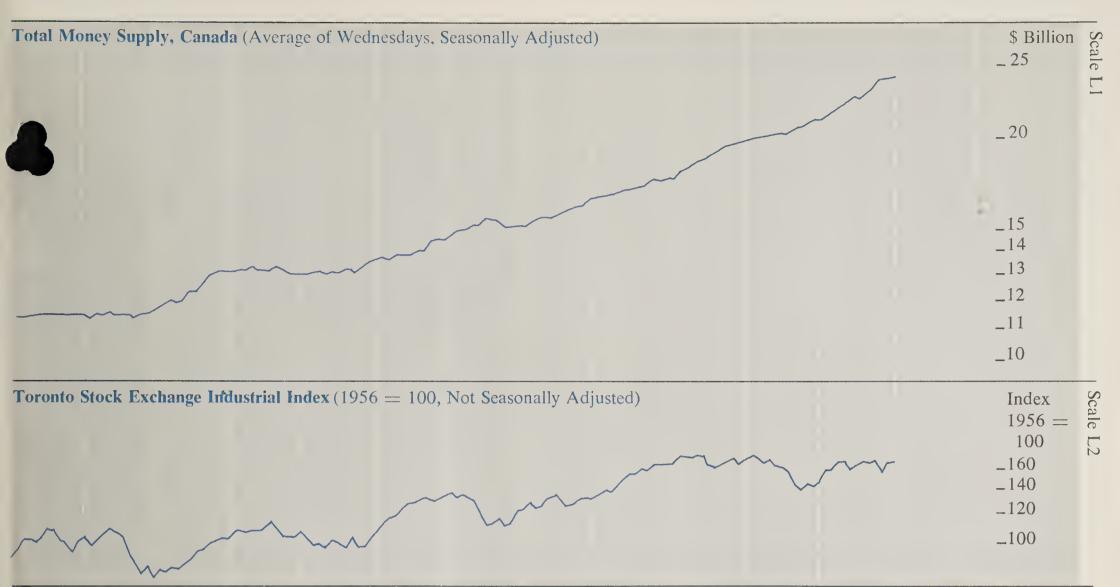
Most other groups enjoyed increases of between five and eight per cent, with fuel dealers, hardware stores, service stations and garages and general stores among the leaders. Drug store sales advanced six per cent with shoe stores following close behind. Clothing stores as a group fell just short of the gains enjoyed the year before, rising less than five per cent. The weakness in consumer durables, already evident in motor vehicles, appeared in furniture, television, radio and appliance stores as well; despite a year-end rally they closed the year with a gain of just more than three per cent – a substantial drop from the near 11 per cent gain of 1966.

# Selected Economic Indicators

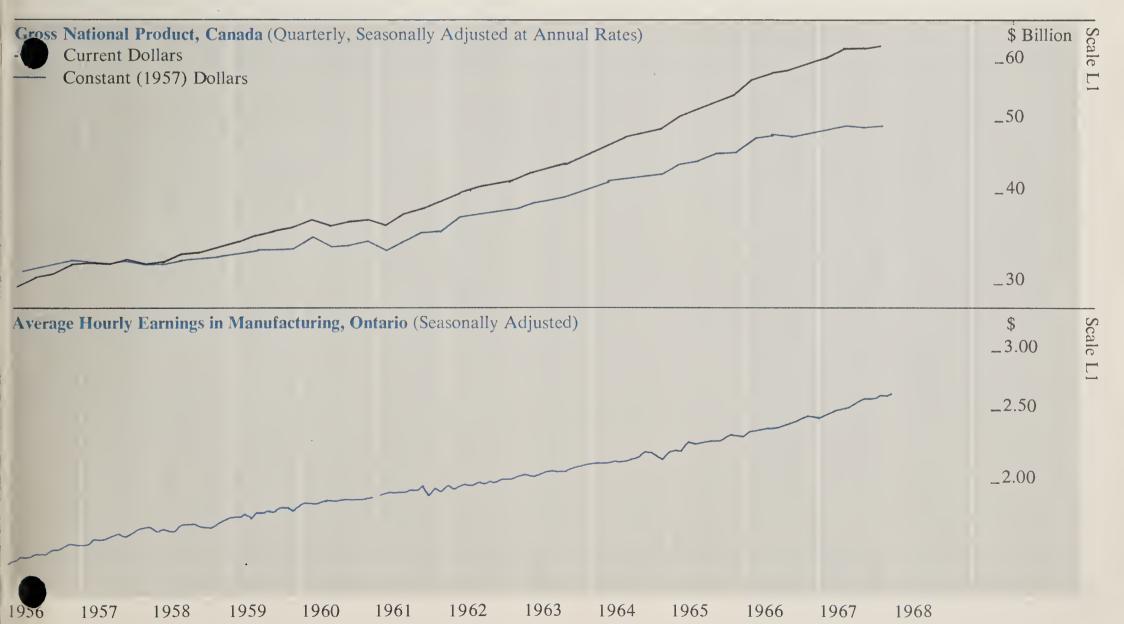
**Leading Indicators** 



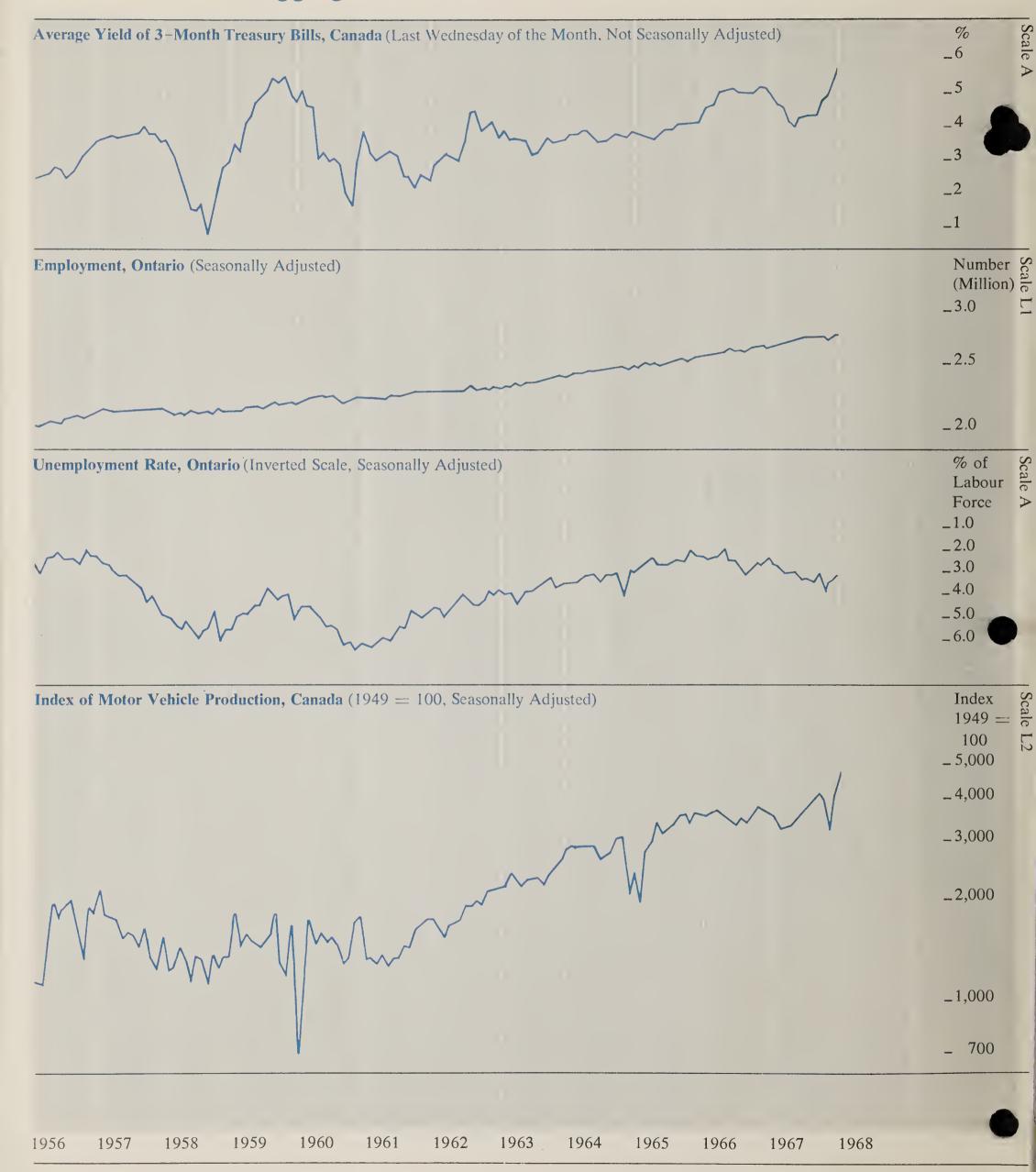
# **Leading Indicators**



# Coincidental and Lagging Indicators



# Coincidental and Lagging Indicators



# **Economic Indicators**

Seasonally Adjusted

		1966		1967											
		Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Leading Indicators															
rage Weekly Hours Worked in															
anufacturing	Number	40.5	40.4	39.9	39.9	40.1	40.2	40.3	40.4	40.5	40.4	40.4	40.4	40.4	40.
New Orders in Manufacturing Industries <sup>c</sup> Business, Industrial and Engineering	\$ Million	3,125	3,361	3,079	3,038	2,981	3,094	3,024	3,117	3,242	3,107	3,161	3,178	3,118	3,30
Construction Contracts	\$ Million	125.9	179.0	123.8	119.6	138.2	112.9	143.5	129.0	129.3	121.6	99.2	129.7	133.0	125.
	Number	123.9	179.0	49,300	59.100		62,700					72,100	66,100	61.000	58,70
Housing Starts	\$ Million	21,149	21,167	,	21.869	/	22,307		,		,	23,755	23,839	24,041	24,14
Money Supply <sup>c</sup> T.S.E. Industrial Index <sup>u</sup>	1956 = 100	144.53	147.63	158.21	160.43	165.09	168.28		164.54	169.66	,	168.72	157.39	161.60	162.2
Business Failures <sup>u</sup>	Number	54	57	71	58	59	73	40	59	52	26	34	79	43	7
Business Failures – Liabilities <sup>u</sup>	\$ Million	2.7	4.7	4.2	4.0	2.7	2.6		2.9	3.2	4.1	2.6	16.6	2.9	24.
Coincidental and Lagging Indicators Gross National Product <sup>c</sup> (Annual Rate)	\$ Million		58,120			60,836			62,072			62,372			62,99
Average Hourly Earnings in Manufacturing	\$	2.42	2.41	2.43	2.45	2.46	2.47	2.49						2.58	
3-Month Treasury Bill Ratec, u	%	5.15	4.96	4.68	4.58	4.13	4.00	4.24	4.28		4.34	4.76	4.95	5.46	
Cheques Cashed in Clearing Centres <sup>1</sup>	\$ Million	4,795	4,914	5,026	4,931	4,657	5,088	4,964			4,983	5,133	5,081	5,459	
Retail Trade	\$ Million	727	720	714	702	711	720			728	749	773	757	770	
Labour Force	000's	2,747	2,754	2,774	2,784	2,816				-,	2,860		2,853	2,860	2,85
Employed	000's	2,672	2,687	2,699	2,707	2,729	2,742				2,763	2,762	2,746	2,764	
Unemployed	000's	75	67	75	77	87	88				97	89	107	96	
Unemployed as % of Labour Force	%	2.7	2.4	2.7	2.8	3.1	3.1	3.1	3.3		3.4	3.1	3.8	3.4	
Wages and Salaries	\$ Million	1,010	1,018	1,022	1,030	1,034	1,045	1,051			1,071	1,075	1,070	1,086	
Index of Industrial Employment	1961 = 100	125.1	125.2	125.9	125.8	125.5	125.3	124.7	124.4	124.9	124.6	124.6	124.4	125.7	125.
	1040 100	280.6	280.1	278.6	277.7	277.1	280.7	280.0	280.8	283.6	284.6	284.3	282.4	289.4	291.
ex of Industrial Production <sup>c</sup>	1949 = 100	251.1	250.1		246.7	246.3	249.7						247.5	256.3	257.
Total Manufacturing <sup>c</sup>		243.5	245.2		242.4								246.2	249.0	247
Non-Durables <sup>c</sup>			257.0		251.7	252.5	255.7						249.0	264.8	268
Durables <sup>c</sup>		260.0	404.4		402.5								431.2	425.7	440
Miningc		406.3	525.5										568.0	571.7	572
Electric Power and Gas Utilities	DZWII	523.1 49.91	50.83				50.59						52.40	53.80	52.9
Primary Energy Demand (Annual Rate)	BKWH	896.8		1.037.9									956.7	969.4	1,023
Exports (including re-exports) <sup>c</sup>	\$ Million	871.9	873.8									921.8	889.5	882.5	928
1mports <sup>c</sup>	\$ Million	0/1.9	0/3.0	731.7	919.0	650.9	,0,.5								
Unclassified Indicators							2.100	0.105	2.160	2 192	2 100	2,221	2,303	2,277	2,26
Foreign Exchange Reservesc, u	U.S. \$ Million	2,242	2,236								2,198 252.0			252.9	
Industrial Materials Price Indexc, u	1935-39 = 100	255.6											150.5	151.0	
Consumer Price Indexc, u	1949 = 100	145.5	145.9	146.0	146.1	146.5	147.8	148.1	148.8	150.2	150.9	150.7	150.5	151.0	101

cStatistics for Canada. Woot seasonally adjusted. Ontario less Toronto.

# REFERENCES COST



# Ontario Economic Review

Mar/Apr 1968 Volume 6, Number 2 Treasury Department-Finance and Economics

Hon. Charles S. MacNaughton, Treasurer of Ontario H. Ian Macdonald, Deputy Minister





# Ontario Economic Review

**Mar/Apr 1968** Volume 6, Number 2

# The Ontario Economy

# Trade Liberalization and the Forest Industries

H. J. McGonigal, Economist

Treasury Department, Finance and Economics

# Selected Economic Indicators

A publication of the **Treasury Department – Finance and Economics Government of Ontario** 

Hon. Charles S. MacNaughton Treasurer of Ontario H. Ian Macdonald Deputy Minister

The Ontario Economic Review is prepared and edited bimonthly in the Economic Analysis Branch of the Economic and Statistical Services Division, Treasury Department, Finance and Economics. The review presents articles of interest as well as current information on economic activity in Ontario. Signed articles reflect the opinions of their authors and do not necessarily represent the views of the Department.

Subscriptions can be obtained free of charge by writing the Editor, Ontario Economic Review, Treasury Department, Finance and Economics, Frost Building, Queen's Park, Toronto 5, Ontario.

## **About the Review**

The feature article for the March-April edition of the Ontario Economic Review describes Canadian trade in forest products, and tariff and trade policies which are currently being followed by Canada. Several other trade approaches are considered, in particular, international trade agreements, tariff and non-tariff barriers, and the possibilities for free trade in forest products with the United States, along the lines of the auto pact.

The report reviews a number of factors which will influence the response of Canadian forest-based industries to changing trade conditions. The factors considered include industrial characteristics such as capacity, ownership and structure, and government activities such as industrial assistance programs and anti-dumping legislation.

This paper, an extract from a longer study, was prepared by H. J. McGonigal, Economist with the Economic Planning Branch, Policy Planning Division of the Treasury Department, Finance and Economics. The study was largely completed in the Applied Economics Branch (Resources and Transportation Studies Section) of the Office of the Chief Economist, prior to the recent merger of that office with the Treasury Department.

# **Indicator Charts, Pages 14-16**

Fluctuations in aggregate economic activity – commonly used to define business cycles – do not necessarily correspond with fluctuations in the individual activities which make up the aggregate. Instead different indicators of economic activity may vary with respect to both their rates of growth and the timing of their peaks and troughs: some may grow more rapidly than others, some change direction sooner.

Those activities which tend to assume a direction in advance of the aggregate – because they relate to future rather than present production – are referred to as leading indicators, and are widely used to anticipate the short-run future course of the overall economy. The charts on pages 14-16 in the Ontario Economic Review present a number of these leading indicators, as well as several which are coincidental to or lag behind the aggregate, to provide for the reader an opportunity to make such an evaluation.

While comparisons of the timing and direction of general changes in the various indicators can readily be made, great care must be exercised in making such a comparison of the amplitude of fluctuations. Of the three vertical scales used – 'A' (arithmetic) and 'L1' and 'L2' (logarithmic scales with one and two cycles respectively over a given vertical distance) – only the logarithmic scales can be used to compare relative changes in different indicators. And this applies only when all series being compared are on the same logarithmic scale. In such a situation all parallel lines represent equal rates of growth, the exact rate of growth being determined by the slope of the line.

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# The Ontario Economy

In the first quarter of 1968 the economy experienced the same slow growth that has characterized it since early 1966. World-wide manetary strain, unsettled financial markets severe pressures on the Canadian dollar are considered to be the cause of the slow pace in most sectors. In addition, the tight money policy adopted late in 1967 was further tightened to ward off speculative attacks on the dollar, and fiscal restraint began to exert a dampening effect on the economy through early 1968.

## **Production**

The seasonally adjusted Canadian Industrial Production Index was 286.1 in March based on 1949 = 100. This represents an increase of 0.4 per cent over the February level of 284.9. While this latest movement reversed that of the previous two months, it still left the index lower by 0.5 per cent in the quarter than in the fourth quarter of 1967.

The March gain originated in both manufacturing – up 0.6 per cent – and mining – up 1.0 per cent. Electric power and gas utilities fell by 2.4 per cent. In manufacturing all of the gain was due to a 2.0 per cent increase in non-durables, as durables continued to decline although the drop (1.0 per cent) was substantially less than that for the two pre-Tus months. In durables the 2.0 per cent cline in iron and steel products was responsible for almost 60 per cent of the overall reduction. The major factor in this case was a 7.0 per cent decrease in the production of primary iron and steel, resulting from a reduction in demand for steel for use in pipes and tubes and in automobiles. In January and February the significant declines in the durables index were largely attributable to labour disputes in both the motor vehicles and the motor vehicle parts industries. The motor vehicle production index in January was 13.0 per cent below the record high for the previous month, and in February 31.0 per cent below the January level. March data indicate a levelling off of the decrease. With the cessation of strikes in this industry a substantial advance in motor vehicle production is expected for April.

In March the mining index returned to 437.6, still below the December 1967 level of 440.7. While the production of gold and copper rose, nickel fell by 4.4 per cent. Increases took place in the production of iron ore, roleum and natural gas.

The non-durable gain was extensive as duction in eight of the eleven major components rose. The major contributors to the

advance were textiles, which rose by nearly 11.0 per cent, rubber 18.0 per cent, and food and beverages 2.0 per cent. The only large decline at the major group level occurred in petroleum and coal products.

The 2.4 per cent decline in electric power and gas utilities was entirely due to a 3.0 per cent decrease in electric power. Gas was unchanged. The decline was due to reductions in Ontario and Quebec, particularly in the latter.

Despite the relatively slow pace of both the construction and the manufacturing sectors preliminary March production figures for steel ingots show an 11.7 per cent increase over March 1967. Production for the first quarter stands at 2.7 million tons, a 17.7 per cent increase over the corresponding period in 1967. Cumulative figures for pig iron production showed a 28.7 per cent increase over the similar three-month period in 1967.

## **Foreign Trade**

Canada's exports for the first quarter of 1968 were substantially higher than one year ago according to DBS estimates. Almost the entire three month increase occurred in exports to the United States.

Exports for the month (unadjusted) were recorded at \$987.7 million, 19.3 per cent greater than in March 1967. In the first three months exports totalled \$2.93 billion, up 14.6 per cent from the corresponding quarter in 1967. Imports too were up – at \$902.5 million for March, they were 4.5 per cent higher than March 1967. For the quarter, imports totalled \$2.80 billion dollars. The result was a favourable export balance of \$85.1 million for March and \$127.8 million for the quarter. The export balance for the first three months in 1967 was \$35.7 million.

As in 1967, when annual exports rose 10.3 per cent to \$11.1 billion, the large gains have been unexpected and have resulted from a series of fortuitous, temporary factors.

The 24.8 per cent increase in United States purchases from Canada reflects the effects of the long U.S. copper strike, strikes in the automobile industry in the final quarter of 1967 and stockpiling of steel in anticipation of a U.S. steel strike.

This first quarter advance has moved Canada a long way toward the 1968 export target of \$12.3 billion set by the Department of Trade and Commerce. The target implies a \$1.2 billion rise in shipments from the 1967 value (including re-exports of foreign products) of \$11.1 billion. The \$373 million year to year export gain in the first quarter pro-

vides more than its share towards achieving this goal.

While the trade figures look extremely healthy, the special factor basis of Canada's export performance is evident in the 1967 year-end statistics. Almost all of the \$1.04 billion increase in domestic exports was accounted for by products that benefited from the Canada-U.S. auto agreement, the U.S. non-ferrous metals industry strike, the Middle East war and the war in Vietnam.

# Ontario Budget 1968

In his second Budget Statement the Honourable Charles MacNaughton, Treasurer of Ontario, announced a moderately expansionary program with total expenditures and investments exceeding total revenues to produce a net stimulus to overall demand.

Net general expenditures for 1968 are estimated at \$2,780 million, \$489 million higher than the expenditure program for 1967. Loans and advances (excluding advances to Ontario Hydro) will rise by 17 per cent to \$537 million, \$79 million higher than the capital aid program for 1967-68.

Net general revenues will be \$2,528 million comprising \$2,400 million from existing tax rates, \$23 million (surplus) from non-budgetary transactions, and \$105 million from new taxes. Overall financial requirements for 1968-69 will thus be \$252 million.

"Our fiscal policy for next year is balanced between a modest tax increase and a judicious use of our liquid reserves and our credit," the Treasurer said.

"We are encouraging expansion while at the same time maintaining our high credit standing and keeping our finances in good order."

Top priority is given to long-run growth programs: education, aid to local governments, health and housing. In fact increased expenditures on education and aid to local government alone account for 80 per cent of the total budgetary increase of \$489 million. For public investment projects and departmental activities, however, it is a firm, hold-the-line budget.

Tax increases of \$105 million will help keep pace with the growth in expenditures. Tobacco, gasoline, and motor vehicle licence fee increases went into effect March 13. Increases in OMSIP premiums and Ontario hospital insurance become effective July 1. Various departmental user fees will also be raised.

To prevent the ever-widening gap between revenues and expenditures at the provincial-

municipal level, the Treasurer called for a comprehensive tax reform and a major redistribution of taxation fields. "We believe the federal government can well abate up to 60 per cent of the personal income tax and 33 per cent of the corporation income tax while still retaining adequate leverage for fiscal control," he said. The tax fields now available to the provinces are regressive and have no growth potential.

# Expenditures

The 1968-69 budget allocates an additional \$201 million for education which is 41 per cent of the budgetary increase this year. In addition, the province is budgeting for some \$350 million in loans and advances to universities, Colleges of Applied Arts and Technology, Ryerson Polytechnical Institute and school boards.

Aid to local government will increase by more than \$191 million which is 39 per cent of the total budgetary increase. The Basic Shelter Tax Exemption recommended by the Ontario Committee on Taxation and adopted immediately will require about \$150 million in the next fiscal year. Takeover of administration of justice costs will add another \$18.5 million.

In health, expenditures will increase on health sciences teaching facilities (including grants for the construction of hospitals) and OMSIP operating expenses. Even with increased premiums, Ontario will have to contribute \$78 million to support the hospital plan and \$37 million to subsidize OMSIP. In housing, Ontario's plans call for a total public program amounting to \$400 million to help meet the need for an average of 90,000 new housing units each year from now until 1970.

In other fields it is almost an austerity budget. The government cut back on capital investment by delaying \$43.5 million of public investment projects. Departmental requests for next year were cut by \$240 million and spending was limited to an increase of 52 million or 6 per cent.

## Revenues

The Treasurer's tax increases include:

- A 4 cent increase in tax on cigarettes raising the provincial tax to 6 cents for 20 cigarettes along with changes for other tobaccos.
- A 2 cent increase per gallon in the tax on gasoline and motor vehicle fuel and a 1 cent increase on aviation fuel.
- Increases of \$5 to \$10 in registration fees for cars.

• Effective July 1, 1968, hospital insurance increases to \$5.50 monthly for single persons and \$11.00 for families. OMSIP's premium schedule will be \$5.90, \$11.80 and \$14.75 per month.

As announced in the Treasurer's first Budget Statement in 1967, work is continuing on the improvement of the budgetary process and of the budget presentation itself. This year three supporting Budget Papers were developed to provide a clearer perspective of this year's budgetary policy.

A limited number of copies of the budget are available from: Ontario Budget 1968, Office Services Branch, Treasury Department, Frost Building, Queen's Park, Toronto.

# Bank of Canada Annual Report

The Canadian economic situation in 1967 was characterized by a number of cross-currents: a slackening in economic growth was coupled with upward pressures on costs, prices and interest rates.

Louis Rasminsky, Governor of the Bank of Canada, in his annual report to the Minister of Finance said, "We have been paying ourselves increases in incomes which have gone well beyond the amounts we have really earned through increased output, and consequently prices . . . were bound to rise." The Bank believes that monetary and fiscal policy should be supported by other types of policy action to stem the increase in costs and prices.

Monetary policy in 1967 had to compromise between permitting interest rates to shoot up (as a result of enormous demands for funds in capital and credit markets) and accommodating the demand by allowing for increased monetary expansion. In fact Canada experienced both rising interest rates and a rapid rate of monetary expansion until the closing months of 1967.

The year opened with a different trend. Interest rates were facing downward pressures with the evidence of a slowdown in economic growth. The Bank Rate was reduced from 5½ to 5 per cent, January 30, and was again reduced to 4½ per cent, April 7, 1967.

However in spring several factors emerged to reverse this trend. There were widespread hopes that the adjustment in the North American economy was short-lived and strong expansion would follow, particularly in the U.S. This led to a desire for liquidity to finance the expected expansion. Another factor was the greatly increased government

demand for funds. The Government of Canada's financing requirements in 1966 were \$100 million; in 1967 they rose to \$1,200 million while provincial and municipal requirements (apart from the amorphotocovered by the Canada and Quebec Pension Plans) rose from \$1,600 million in 1966 to about \$1,900 million.

A new feature affecting monetary policy this year was the structural changes in the banking system as a result of the Bank Act revision which went into effect in May 1967. The revisions made banks more competitive by removing or relaxing most of the special restrictions under which banks had been working. Effective May 1, the interest rate ceiling on loans was raised to 71/4 per cent for the remainder of the year and removed altogether as of January 1, 1968. Banks were empowered to originate mortgage loans at current rates of interest and issue debentures (with an original term to maturity of at least five years) which are not subject to cash reserve requirements. The structural changes in the financial system meant that part of the apparent monetary expansion represented the capture by the banks of a larger share of the growth in deposits.

The external conditions affecting monetary policy were the devaluation of sterling. November and the U.S. balance of paymer program, outlined January 1, 1968. The sterling devaluation weakened world confidence in the stability of exchange rates and triggered large-scale buying of gold. The U.S. maintained the price of gold at \$35 an ounce with the help of other gold pool countries including Canada which sold the U.S. \$100 million of gold in December alone.

The announcement of the U.S. balance of payments program placed pressure on the Canadian dollar and an abnormal selling of Canadian dollars took place in the exchange market. The Bank Rate, raised from 5 to 6 per cent in November, was further raised to 7 per cent in January 1968. The Bank believes that Canada should not be so dependent on capital imports from the U.S. particularly when the U.S. itself faces a payments problem. Fortunately Canada's current account deficit is decreasing: last year it fell to \$425 million from \$1,140 million in 1966. (Even after discounting Expo tourist receipts, our situation has improved.)

A striking feature of the economic sit tion in 1967 was the moderate degree of adjustment. The economy continued to pand, though at a slower rate.

# Trade Liberalization and the Forest Industries

H. J. McGonigal, Economist

**Treasury Department, Finance and Economics** 

### Introduction

The complex and diverse aspects of Canada's and other countries' trade policies are curreptly of major interest to federal and proal governments, industrial associations and other private organizations. In the field of forest products the federal government, through the departments of Industry and Trade and Commerce, has undertaken studies of a number of industries in the light of possible trade developments and tariff changes. Industrial groups such as the Canadian Pulp and Paper Association and the Hardwood Veneer and Plywood Association have presented briefs to the federal government on trade policy matters. The Private Planning Association of Canada has studied the impact of trade policies on pulp and paper, furniture and several other industries. In addition, more broadly based studies have been carried out for organizations such as the Economic Council of Canada and the Canadian-American Committee of the Private Planning Associations in Canada and the United States. This report has been developed from the findings of some of these studies and the opinions expressed by industry and government officials and others concerned with the subject of trade policy.

The report provides a general outline of impact of international trade on the torest-based industries and contains a brief review of changing patterns of trade. National trade policy and its objectives, alternative approaches currently under discussion and the probable results which could follow implementation of different trade policies are also considered.

As the possible re-shaping of trade patterns resulting from tariff revisions depends on many unknown factors, the conclusions must be viewed as probabilities rather than as accurate predictions. The available information has been interpreted first in terms of the forest-based industries at the national level and then, wherever possible, projected to the level of Ontario's forest-based industries and the opportunities and adjustments which may confront them. Due to its major contribution to export trade, the pulp and paper industry receives the greatest attention.

Variations in cost factors between industries and between individual establishments within an industry make the overall assessnt of effects of trade and tariff changes hly theoretical. In order to produce more rete and practical results, cost details of individual firms – both domestic and

foreign – would have to be analysed in the light of changing trade conditions. Therefore this study, while presenting an analysis of certain economic forces influenced by tariff changes, recognizes that their effect in individual situations may vary according to factors such as company structure, capacity, efficiency, product quality, location and market relationships.

# INFLUENCE OF CANADIAN AND FOREIGN TRADE POLICIES ON OUR FOREST-BASED INDUSTRIES

## **Trends in International Trade**

The development of new international trading blocs and the expansion of existing regional associations is under active consideration in a number of our foreign markets. In terms of its impact on Canada's current trade patterns, Britain's desire to enter the European Economic Community (EEC) is at present the most important of these developments. Similar applications of other European Free Trade Association (EFTA) members, and the possibilities for enlarged South American¹ and Pacific regional trading associations, are of less immediate concern to Canada although their long-term implications could be serious.

Altered trading alignments and changing marketing conditions will be evident in three areas:

- 1. The decreasing importance of preferential trading terms within the Commonwealth a growing trend in recent years.<sup>2</sup>
- 2. Additional trade barriers to the growing markets of industrial Europe, especially if other countries come under the common external tariff schedule of the EEC.

3. Continuing dependence on U.S. markets and increasing competition with U.S. producers in both domestic and foreign markets.

These trading developments, coupled with the "Kennedy Round" of GATT negotiations, present Canada with a serious challenge in maintaining its foreign markets and expanding its export trade in a highly competitive international environment.

For 20 years Canada's major foreign market has been the United States. Since 1946 the value of exports to the U.S. has annually exceeded the value of exports to our other major foreign outlet, the United Kingdom. In 1966, 60 per cent of our exports, by value, went to the U.S. with Britain receiving only 11 per cent and every other country receiving a lesser amount. The best short-run opportunity for expanding the market for our products will continue to lie in the close and populous United States, particularly if Britain is admitted to the EEC and our preferential tariff advantages there are eliminated.

Canada's export trade rests to a large extent on wheat and crude and fabricated industrial goods from the mineral and forest products industries. A recognized objective for continued economic growth is to increase the level of manufacturing and the "value added" of our exported goods in the processing and secondary manufacturing industries. This objective will not be easy to achieve against competition from other countries, both at home and abroad, even in industries such as forestry where some natural advantages should favour our operations.

The essence of the problem is Canada's industrial structure. Our manufacturing in-

# Geographic Distribution of Canada's Domestic Exports, 1965-66

	1965 Expor	ts	1966 Ехроі	rts
	\$ Million	Per Cent	\$ Million	Per Cent
United States	4,840.5	56.8	6,027.7	59.9
United Kingdom	1,174.3	13.8	1,122.6	11.1
European Common Market	625.8	7.3	636.7	6.3
Commonwealth and Preferential				
(Except U.K.)	502.3	5.9	547.4	5.4
Japan	316.2	3.7	394.2	3.9
Other Countries	1,066.0	12.5	1,342.2	13.3
Total	8,525.1	100.0	10,070.8	100.0

Source: Dominion Bureau of Statistics, Exports by Countries, 1966.

<sup>1</sup>Current groupings consist of Latin American Free Trade Association (LAFTA) and Central American Common Market (CACM). <sup>2</sup>Particularly since the elimination of duties in January 1967 among EFTA member countries.

# Structure of Commodity Trade Exports, 1965, 1966

	1965		1966	
<b>Major Categories of Commodities</b>	\$ Million	Per Cent	\$ Million	Per Cent
Foodstuffs (Mainly Wheat)	1,709.0	20.0	1,966.6	19.5
Crude Materials (Mainly Minerals)	1,763.7	20.7	1,947.4	19.3
(Logs, Poles, Chips, etc.)	(59.3)	(0.7)	(63.1)	(0.6)
Fabricated Materials	3,728.8	43.7	4,012.1	39.8
(Lumber, Wood Manufactures,				
Pulp, Papers)	(2,033.7)	(23.8)	(2,168.3)	(21.5)
End Products (Mainly Motor				
Vehicles)	1,323.7	15.5	2,144.6	21.3
Total Exports	8,525.1	100.0	10,070.8	100.0

Source: Dominion Bureau of Statistics, Summary of Exports, 1966.

dustries are generally higher-cost operations, despite lower wage levels, than similar United States industries. This condition is attributed to our tariff-protected industrial sector and to a domestic market not large enough to support the most efficient scale of operations. To compound the problem, foreign tariffs have seriously restricted the access of Canadian products to large foreign markets. To overcome these difficulties new trade policies must be developed which permit Canada to protect and expand its position under the changing conditions of international trade.

# **Canadian Trade Policy**

A basic objective of Canadian trade policy in recent years has been to open larger markets for our competitive industries than our domestic economy can provide. The larger markets are expected to result in greater productivity through large-scale production and specialization in our industries. In addition, through reciprocal reduction of protective barriers, Canadian producers and consumers can enjoy access to imported and, in some instances, domestic goods at a lower cost.

Maximum development of the manufacturing sector is the primary objective of Canadian expansionary trade policies. Since growth in the manufacturing sector produces the greatest benefits in terms of income and employment generation, trade policies should foster trade in manufactured papers and fabricated wood products such as plywood—rather than semi-processed materials such as wood pulp, veneer or rough lumber. In turn, exports of the semi-processed materials are more rewarding than exports of raw materials such as pulp chips or unmanufactured logs.

Many of our semi-manufactured and manufactured products are competitive in international markets and have a greater foreign exchange value than unprocessed material. One dollar's worth of roundwood utilized by our domestic wood-using industries contributes to an output of manufactured goods having more than four times the value of the manufactured logs. In 1963, \$726 million worth of logs, bolts and pulpwood were used by the major wood-using industries in

Canada in manufacturing goods whose shipments were valued at \$3,123 million. Export statistics for 1966 indicate that the equivalent of two million tons of newsprint exported in the form of pulpwood and with a value of \$41,000,000. The equivalent newsprint value would have been about \$260,000,000.

In order to gain more liberal entry to foreign markets for our manufactured products, Canada will have to offer reciprocal reductions in its own protective tariffs. These reductions can best be made in areas where our natural advantages and export potential are greatest.<sup>3</sup> These areas include forest industry products.

# **Canadian Tariffs and Trade in Forest Products**

The tariff-protected sector of our forest-based industries includes: producers of the various types of paper – except newsprint and periodical papers; the paper converting industries along with all other secondary manufacturers in the paper trades; and all wood product manufacturers with commodities processed beyond the stage of dressed lumber. Other forest products – logs, pulp chips, wood pulp and newsprint – already enter Canada, the

# Value of Production and Consumption of Roundwood and Shipments of Manufactured Goods, Major Wood-Using Industries, 1963

Sources and Users of Roundwood <sup>1</sup>	Value Used	Average Annual Value of Production 1961-1963	Value of Shipments of Manufactured Goods and Roundwood <sup>1</sup>
		\$ Million	
Primary Forest Production	on	825.5	
Imports			20.1
Exports			32.3
Wood-Using Industries			
Total	726.4		3,123.6
Pulp and Paper Mills Sawmills and Planing	371.1		1,793.2
Mills Veneer and Plywood	281.1 (est.)		782.6
Mills	67.3		190.9
Other Industries <sup>2</sup>	6.9		356.9

<sup>1</sup>Roundwood includes logs, bolts and pulpwood.

<sup>2</sup>Other industries include sash, door and planing mills, hardwood flooring industry, wooden box factories and miscellaneous wood industries.

Source: Dominion Bureau of Statistics.

<sup>3</sup>Other reductions will also have to be made. The Minister of Finance stated in 1966 at the International Conference on Canada and the Atlantic Community, "I would not want to leave the impression that when I think of industrial sectors in which the major countries should

move toward free trade I am referring only to those in which Canada appears to have a clear competitive advantage over other countries." The Minister mentioned pulp and paper products and mineral products as commodities in which Canada holds a clear advantage.

United States and the United Kingdom free of duty.<sup>4</sup>

Imports of forest products into Canada in 1966 were valued at slightly more than million, a decline of almost \$100 million from the corresponding value of imports in 1960. The 1966 imports equalled only 7.5 per cent of the total value of Canadian forest products exports in the same year.

Approximately two-thirds of the imports were dutiable, the largest categories being \$62 million worth of papers and paperboards and \$35 million worth of veneer, plywood and other fabricated wood materials. Most imported commodities in 1966 came from the United States; the only exception was in the veneer and plywood category where 56 per cent came from Japan and Taiwan.

Canadian exports of forest products were valued at \$2,244 million in 1966, a 40 per cent increase over 1960. In 1964, the value of exports, \$2,012 million, equalled two-fifths of the total value of shipments of manufactured goods and primary forest products from the forest-based industries. Ontario industries accounted for more than one-quarter of the total value of shipments.

Shipments of commodities entering other puntries duty free currently constitute the eat bulk of our trade in forest products. In 1966, approximately two-thirds of exported forest products were logs and bolts, pulp chips, wood pulp, newsprint and other duty-free commodities sent to the United States and Great Britain.

In 1965, the value of Canadian forest products exported to the United States was \$1,581 million, or three-quarters of the value of our

# Canadian Exports of Forest Products, 1960, 1966

	Value of Ex	knorts	Percentage Change 1960 to 1966		
<b>Export Category and Commodity</b>	1960	1966	(In Constant Dollars)		
	\$ Million		%		
Crude Materials					
Pulpwood	25.8	32.6	13.6		
Pulp Chips	5.3	8.4	42.4		
Other Unmanufactured Wood	56.5	(2)			
Other Crude Wood Materials	(2)	22.2	$6.2^{3}$		
Fabricated Materials					
Lumber and Other Sawmill Products	367.3	511.7	23.7		
Other Manufactured Wood	8.0	(2)			
Veneer <sup>2</sup>		31.8	52.9 <sup>3</sup>		
Plywood <sup>2</sup>		41.5	$126.8^{3}$		
Other Wood Fabricated Materials <sup>2</sup>		7.4	$2.8^{3}$		
Wood Pulp	325.1	520.1	50.4		
Newsprint Paper	759.6	972.1	13.0		
Book and Writing Paper	12.2	32.9	141.9		
Paperboard	12.2	30.9	153.3		
Wrapping Paper	5.4	8.2	43.9		
Other Papers	5.2	14.9	170.9		
Paper Products	4.1	9.0	104.5		
Total	1,586.8	2,243.7	26.9		

<sup>&</sup>lt;sup>1</sup>Based on changes in Industry Selling Price Indices and General Wholesale Index for selected commodities.

Sources: DBS; Canadian Pulp and Paper Association, Reference Tables.

forest products exports to all countries. Exports from Ontario accounted for \$359 million, or 23 per cent of the total value of exports of these products to the U.S. Almost nine-tenths of Ontario's exports of forest products enter the United States duty free.

Canadian Imports of Forest Products, 1966

	Value	Imports From U.S.A.
Commodity	\$'000	%
Crude Wood Materials	24,067	99.2
Lumber	38,335	85.7
Veneer, Plywood and Wood Building Boards	23,172	34.0
Other Wood Fabricated Materials	12,539	87.1
Wood Pulp and Similar Pulp	8,904	82.8
Paper and Paperboard	62,035	94.6
Tal .	169,052	83.8

A feature common to many Canadian firms in the forest-based industries sector is the production by the same plant of both tariff-protected commodities for our domestic market (i.e. fine papers) and export-oriented commodities such as wood pulp or newsprint. This dichotomy places the firm in the position of favouring free trade or lower tariffs in foreign countries for pulp and newsprint, while at the same time pressing for high protective tariffs in Canada for the firm's other types of papers and paper products. However, the best long-run opportunities for our resource-based firms lie in more liberal trading conditions among the industrial nations.

# ALTERNATIVE POLICIES FOR TRADE LIBERALIZATION

The federal government has indicated that it intends to seek free trade with as many countries as possible for many manufactured commodities. To achieve freer trade in forest products we must either reduce or eliminate our protective tariffs and non-tariff barriers

<sup>&</sup>lt;sup>2</sup>No comparable figures available due to export commodity classification revisions in 1961.

<sup>&</sup>lt;sup>3</sup>Percentage change from 1961 to 1966.

<sup>&</sup>lt;sup>4</sup>All forest products from Canada enter the U.K. free of duty under the Commonwealth preference system.

Value of Shipments of Goods Manufactured by Forest-Based Industries, 1964

	Value of Shipments					
	Canada	Ontario	Ontario			
	\$ Million		%			
Wood Industries	1,395.9	221.0	15.8			
Paper and Allied Industries	2,707.3	950.2	35.1			
	4,103.2	1,171.2	28.5			
Primary Forestry Production	986.9 (est.)	165.0 (est.)	16.7			
Total	5,090.1	1,336.2	26.4			

Source: Dominion Bureau of Statistics.

to persuade our trading partners to reciprocate. The choice of policies to be followed will depend on two factors: the domestic effects of any policy, and other countries' responses to our trade policy. To achieve complete free trade with a minimum of destabilizing domestic consequences it will be necessary to stage the reduction and elimination of all barriers.

Analysis of alternative trade policies in this study is mainly limited to their effects on the domestic environment. The international aspects require a separate study outside the scope of this report.

## **Tariff Reductions**

A basic step in any policy for trade liberalization is the reduction of tariffs against imported goods. In the past, reductions in Canada's protective tariffs have generally been opposed by our domestic manufacturers. The Canadian-American Committee

of the Private Planning Associations of the U.S. and Canada, in its support for an Atlantic free trade area approach, offered the following criticism of the GATT negotiations for multilateral tariff reductions:

Partial reductions in other nations' tariffs do no more than decrease the competitive disadvantage of Canadian goods moving abroad. On the other hand, the corresponding acts in Canadian protection facilitate penetration of the domestic market by already lower-priced foreign goods. There appears insufficient incentive in such partial tariff cuts for a full restructuring of Canadian industry.<sup>5</sup>

Trade liberalization will require the relaxation of non-tariff barriers too. In the view of many Canadian exporters, other countries' non-tariff barriers are "cumbersome, costly and obscure and act as a brake on trade – very often they counteract the effects of even far-reaching tariff reductions . . ." The sub-

ject of non-tariff barriers is highly complex. The more "simple" and negotiable barriers include quota systems, automatic anti-dumping laws, discriminatory valuation of imports and documentation procedures. The con barriers include discriminatory standards of quality, discriminatory shipping rates and regulations, and other provisions such as governmental purchasing preferences which favour domestic rather than foreign services and products. The federal government recently made a commitment to GATT to establish new, less restrictive anti-dumping regulations covering imports to Canada. Other non-tariff trade barriers may also have to be relaxed to win reciprocal advantages in foreign markets.

# **Area and Commodity Trade Agreements**

Policies for free trade can be separated into two categories: the area or geographic approach-regional and world-wide trade agreements; and the commodity approach sectoral and blanket trade agreements. Regional agreements can cover both multilateral and bilateral policies, as within an Atlantic association of countries (multilateral), or an agreement with the U.S. alone (bilateral). Within the geographic framework, alternatives exist in the various types of commodity agreements and include general or blanks agreements covering all commodities, more limited agreements covering fewer commodities. The limited commodity agreements may be established on a sectoral basis to cover the products of one industry.

Prime Minister Pearson, in an address to the International Chamber of Commerce Congress in May 1967, stated:

There is a growing appreciation that certain whole sectors or industries must be approached on a broad international front... By dealing with these industries as a whole, it may be possible to negotiate balanced bargains covering both tariff and non-tariff barriers.<sup>7</sup>

The description of the type of industry he was referring to is certainly appropriate to some sectors of the forest-based industries that are characterized by high capital investment, advanced technology, large-scale production and widely dispersed international operations.

One limited form of free trade for Canadian commodities may be achieved through regional trade agreements. A regional agreement might include the United States the EFTA countries as the nucleus of a trade area. Some type of Atlantic Free Trade

# Ontario and Canadian Exports of Forest Products to U.S., 1965

Commodity Group	Ontario Exports	Total Canadian Exports	Ontario Percentage	
	\$'000			
Crude Wood Materials	9,326.7	30,358.5	30.7	
Sawmill Products	23,119.0	377,570.8	6.1	
Veneer and Plywood	15,344.8	35,386.1	43.4	
Other Fabricated Wood Materials	1,673.6	4,408.7	38.0	
Wood Pulp	93,709.8	371,427.9	25.0	
Newsprint and Other Printing Papers	209,462.4	748,432.2	28.0	
Other Papers	6,015.5	13,317.8	45.2	
Total	358,651.8	1,580,902.0	22.7	

Source: Dominion Bureau of Statistics.

5"A New Trade Stategy for Canada and the U.S.," Atlantic Community Quarterly, Summer 1966.

<sup>6</sup>Canadian Electrical Manufacturers Association, Non-tariff Barriers to Trade and Competitive Disadvantages in Foreign Markets, April 1967. 7"The Next Steps in Trade Liberalization,"

Atlantic Community Quarterly, Summer 1967.

Area has been advocated in recent years and is being seriously studied by the Private Planning Association of Canada. The federal government has stated its disinterest with ricted membership agreements as they would tend to act as additional barriers to expanding world-wide trade with countries outside the regional bloc. In 1966, Prime Minister Pearson stated that:

Discriminatory, inward-looking regional groupings... are no answer to the problems of the world today. Whether formed on a European or North American or even an Atlantic basis. Unless such groups are so organized as to look outward, as to lead to wider arrangements... they can be a step backward rather than forward.8

As an example, the EEC will adopt common tariffs against goods from all non-member countries on July 1, 1968. The external tariff system of the EEC is threatening to affect imports to the EEC member countries whose own tariffs were initially lower than the forthcoming common tariff rates. GATT membership, on the other hand, is available to any country and the results of GATT negotiations are available to all member countries on the Most Favoured Nation basis.

# Bilateral Arrangements

more restricted regional agreement would be a bilateral trade agreement between Canada and the United States. In recent years the possibilities for various free trade arrangements between Canada and the U.S. have become a popular subject for discussion. Two trade arrangements are under scrutiny here: first, complete, or almost complete, free trade; and second, limited free trade in selected commodities only, as in a sectoral agreement.

The elimination of tariff and other protective barriers could be negotiated under three different arrangements: (1) a free trade area system; (2) a customs union; and (3) a common market. In each of these systems protective trade restrictions between the member countries – Canada and the U.S. – would be eliminated on almost all commodities.

The systems differ primarily in their degree of mutual action on trade relations with non-member countries. Each offers the elimination of trade restrictions among memor countries. In a "free trade area," each ember country can maintain its own extertariffs with outside countries. In a "customs union" the member countries would

establish a common external tariff against outside countries. The "common market" arrangement represents a much greater degree of integration among member countries both in trade policies and in other spheres.

The forest-based industries have favoured a free trade arrangement that would also encompass the European countries rather than an agreement with the United States alone. In the larger grouping, our producers would have to face not only the competition of efficient U.S. producers but also the competition of the generally less-efficient European manufacturers. European producers, particularly in the U.K. and EEC countries, must rely to an increasing extent on imported raw materials in order to meet growing demands; however, in the past they have strongly opposed tariff reductions on pulp and papers because of fear of North American competition.

In political terms, Canada would appear to have more independence in an Atlantic or Hemispheric Association, than in any type of association with the United States alone. An American Free Trade area, which would also include Caribbean and Central American countries, has also been proposed. However, due to the relatively undeveloped state of the other countries, it would not differ significantly from a bilateral agreement with the United States. There is vigorous public opposition to any general free trade agreement with the U.S.

A Canada-U.S. arrangement that could get more public support is that of free trade in particular products only. Limited bilateral free trade agreements such as the auto pact are more acceptable to Canada than the more complete forms of economic integration because the degree of independence forfeited is, in theory, greatly lessened. However, other GATT members might react unfavourably toward further bilateral agreements for individual industries beyond the current Canada-United States auto trade agreement. In addition, the position of the United States industries and government on further bilateral agreements is uncertain.

A sectoral free trade agreement could cover the products of the forest-based industries. Free trade between the two countries already exists in many raw and semi-processed forest products – roundwood, pulp chips, semi-finished lumber, wood pulp, newsprint and waste papers.

Canadian forest products manufacturers have criticized the limited, single-industry

free trade approach since inputs such as imported U.S. mill machinery would still be dutiable. The industry claims such a disadvantage would make it difficult for our producers to achieve competitive production costs.

Manufacturers also believe that a single-industry approach would not provide enough incentive to the federal government to alter its anti-combines legislation. They say that mergers and industry-wide planning would be necessary to deal successfully with a lessening of protection here and in the U.S. Without some relaxation of current anti-combines legislation in Canada, such activities could be illegal.

A brief from the Canadian Electrical Manufacturers Association to the Economic Council of Canada<sup>9</sup> urges more flexible anticombines legislation to enable those manufacturers facing reduced tariff protection to improve their competitive strength. The electrical manufacturers contend that changes in world economic conditions could be relied upon to preserve competition in the Canadian domestic market.

The various policy alternatives open to the government are not mutually exclusive. Rather they can each be considered as progressive stages toward a distant objective of complete and universal free trade in forest products. After the current round of GATT reductions are implemented, opportunities and necessities may well force Canada to consider further tariff reductions. However, the unwelcome prospect of reciprocal trade restrictions and increased barriers still exists. It appears likely that progress toward free trade in Canadian forest products will occur as a result of further reductions in tariffs and non-tariff barriers through sectoral free trade agreements on a regional or multinational basis.

# FREE TRADE IN FOREST PRODUCTS BETWEEN CANADA AND THE UNITED STATES

# Canada's Forest-Based Industries and the Auto Pact

Obvious differences between the auto industry and the forest-based industries make it difficult to appraise the applicability of a Canada-U.S. trade agreement strictly patterned on the auto pact. In the words of Mr. Drury "the automotive program was devised to meet a unique set of circumstances and, as such, is not directly applicable to other industries."<sup>10</sup>

<sup>8</sup>From an address by Prime Minister Pearson to the International Conference on Canada and The Atlantic Economic Community, November 1966.

<sup>&</sup>lt;sup>9</sup>Submission to the Economic Council of Canada on "Certain Important Aspects of the Responsibilities of the Registrar General of Canada," July 1967.

The Canadian auto industry is comprised of a few large firms, subsidiaries of U.S. parent companies. Their products are similar and have been advertised jointly in the U.S. and Canada for many years. The Canadian industry supports a number of small domestic industrial suppliers who are highly susceptible to the repercussions of the trade agreement.

The forest-based industries are a large group of separate and distinct industries producing a great variety of products. Their common feature is the use of forest products as raw materials. The industries considered in this section are those primary and secondary manufacturers whose products are industrial goods manufactured from raw or semi-processed forest products. The pulp and paper industry leads the group in terms of value of shipments, although the wood industries – sawmills, veneer and plywood mills, sash, door and planing mills, casket makers and others – represent a much greater number of individual establishments. While there were 131 primary pulp and paper establishments in Canada in 1964, there were more than 5,000 individual firms in the woods industries.

In the last decade there has been a trend toward enlargement through integration within the forest-based industries. The smaller pulp and paper mills and sawmills are often marginal operations incapable of high volume, high quality production. The future prospects for such firms are poor regardless of possible developments in Canadian and United States trade agreements. In the last two years, six small groundwood pulp mills located in Eastern Canada have had to heavily curtail production or shut down entirely. In Ontario, Domtar Ltd. announced that it will close its St. Catharines sulphite mill early in 1968.<sup>11</sup>

The federal government recognized when the auto pact was being developed that eliminating U.S. tariffs would not be sufficient to remove the institutional impediments to automotive trade. Since these impediments, resulting from U.S. ownership, could also limit domestic production and exports, Canadian auto manufacturers were committed to greatly expand their production and maintain the Canadian content of their production over the period of the initial agreement to 1968. The current agreement is thus, in effect, a conditional free trade agreement.

Impediments related directly to U.S. ownership of Canadian firms are less significant auto industry, since a considerable number of firms in this group are not controlled by U.S. corporations (even in the pulp and paper sector where U.S. participation in Canadian production facilities is high). As an unavoidable corollary, conditional clauses guaranteeing our firms a share of the growth of the U.S. – or Canadian – market would certainly not be offered by U.S. firms in a forest-product free trade pact. Unfortunately, the U.S. marketing system can cause formidable difficulties for the independent Canadian pulp and paper producers. There are only a few open marketing outlets serving U.S. consumers of papers. Most U.S. outlets and converters are producer-controlled and are tied to one company's products. The result is that Canadian mills that are not affiliated with U.S. corporations have difficulty obtaining large-scale marketing outlets and customers among the paper converters in the United States.

in our forest-based industries than in the

In order to realistically judge the possibilities for a free trade agreement for our forestbased industries each member in the group must be considered individually. Each of the major categories of manufactured products from paper to plywood, is unique in production methods, costs and end uses. As opposed to autos, the commodities are lowunit-value items, mass produced in numerous different grades, dimensions and species, for a variety of firms for further manufacturing into other industrial or consumer goods. The consumer market does not provide a large direct outlet for the products. A similar industrial structure exists in the United States where mergers, consolidations and integration have been even more prominent than in Canada.

# Results of a Free Trade Agreement

Some continental reorganization of production facilities based on raw material supplies and markets could be expected to result from a free trade agreement. The larger U.S. producers could replace some of our smaller, less efficient producers. However, the converse would also be true with Canadian firms dominating in some of the sectors. Under duty-free entry Canadian newsprint manufacturers have held a strong position in the U.S. market for many years. Our producers should continue to do well in the future, despite the rapid growth of a domestic industry in the southern states. It is the overall result of the relative efficiencies of the various

Canadian and American producers by which a free trade agreement in forest products must be judged.

The industry has stated that sales taxes and duties on inputs will leave our product at a disadvantage compared to U.S. compettors. The new Canadian tariff rates on machinery will average out to nine per cent.<sup>12</sup>

It is interesting to note that in 1966 U.S. machinery manufacturers unsuccessfully urged their government to raise tariffs on foreign pulp-and-paper-making machinery (European) to the previous level of 25 per cent from the current level of 7.5 per cent. New Kennedy Round rates will range from 3.5 to 5 per cent for most machinery entering the United States – still considerably below the new Canadian rate.

In the auto parts industry, despite lower average wage rates in the Canadian industry and the dollar discount, average costs for our manufacturers are estimated at 5 to 15 per cent higher than in the United States.<sup>13</sup> In more general terms, it is believed that "many Canadian industries have higher production costs than comparable U.S. enterprises, even though manufacturing wages average 17 per cent below U.S. rates."<sup>14</sup>

In the forest-based industries there are similar cost disadvantages, particularly for smaller producers, but the disadvantages at often less severe due to lower raw material costs. The gap in productivity between Canada and the United States is much smaller in the forestry sector than in other areas of manufacturing and could probably be effectively eliminated for some of our operations.<sup>15</sup>

Under a free trade pact raw materials (logs) could move in much greater volume to the most efficient neighbouring U.S. manufacturers for processing – provided transportation costs made this traffic economical. However most provinces restrict the export of logs. Ontario's legislation governing log exports is The Crown Timber Act which states that all timber cut has to be used for manufacturing in Canada, unless used for fuel, building, etc.<sup>16</sup> The restriction applies only to timber cut from public lands. No restriction is placed on the export of timber cut from patented lands, but a statutory declaration<sup>17</sup> must be made which states that the forest products to be exported were cut from patented lands.

Interprovincial shipments of raw material to our most efficient mills might also increas unless restricted by provincial authorit. Quebec legislation concerning Crown Timber

<sup>&</sup>lt;sup>11</sup>The Financial Post, Toronto, July 15, 1967 and September 2, 1967

and September 2, 1967.

12Free entry for machinery not available in Canada and a 15 per cent tariff on machines which are or could be manufactured here.

13Paul and R. J. Wonnacott, "The Automotive

Agreement," Canadian Journal of Economics and Political Science, May 1967.

14"Canada-U.S. Trade Relations," World Business, March 1967.

<sup>15</sup> Economic Council of Canada, "Scale and Specialization in Manufacturing," Fourth

Annual Review, ch. 6 (Ottawa: Queen's Printer, 1967).

<sup>&</sup>lt;sup>16</sup>Revised Statutes of Ontario 1960, The Crown Timber Act, Sec. 14, ch. 83 as amended by 1961-62, ch. 27.

<sup>&</sup>lt;sup>17</sup>The Crown Timber Act, Sec. 15, op. cit.

covers the movement of logs across the provincial boundaries as well as across the Canadian border.

As a result of the increase in domestic proion of cars and parts following the auto pact, the suppliers of raw materials and industrial goods for the auto industry have an expanded market. If Canadian forest-based industries' production were increased substantially, some secondary expansion would occur in supporting services and equipment. However, the impact of increased production would be greatest on the immediate supply of standing timber and the actual timber harvesting operations. Increases in the scale of logging operations could generate some increase in the demand for woods labour which is already becoming scarce - and modern mechanized logging equipment. If any great expansion of industrial production and raw material consumption occurs without similar increases in current expenditures for future timber production and forest land management, shortages of material could result.

# FACTORS AFFECTING THE RESPONSE OF THE FOREST-BASED INDUSTRY TO NEW TRADE CONDITIONS

## apacity

The existing productive capacity of the forest-based industries in Canada is sufficient to support a considerable increase in exports.

# Annual Investment in the Forest-Based Industries, Canada, 1960 to 1967

Capital and Repair Expenditure Sector	e <b>s</b> 1960	1963	1964	1965	1966 <sup>(pa)</sup>	1967 <sup>(i)</sup>		
	\$ Million							
Forestry	97	106	145	151	141	141		
Wood Industries	87	94	110	132	115	100		
Paper and Allied Industries	267	.326	454	565	719	617		
Total	451	526	709	848	975	858		

<sup>(</sup>pa) preliminary actual

Source: Canada, Department of Trade and Commerce, "Private and Public Investment in Canada," annual.

Up to the end of the third quarter of 1967 there was increasing surplus capacity in the various sectors of the pulp and paper industry due to a current slowdown in growth of demand and a large increase in capital investment. Actual production as a percentage of productive capacity was 91 per cent for paperboards, 88 per cent for newsprint, 88 per cent for other papers and 85 per cent for chemical pulps.<sup>18</sup>

Primary forestry activities showed a significant increase in investment and repair expenditures from 1963 to 1964, thereafter holding relatively constant up to the present. Annual expenditures in the wood industries

showed a gain of 32 per cent from 1960 to 1966.

The major increases in capital investments in the industry began in 1963 when investment was more than 10 per cent higher than the level in 1962. Capital and repair expenditures continued to increase substantially each year up to 1966. Investment intentions for 1967, as determined in March of that year, indicate a decrease from the previous year's expenditures for the first time this decade. Early indications suggest that 1968 expenditures will again continue downward as productive capacity has exceeded demand in the short run.

# Pulp and Paper: Production, Capacity and Consumption in Canada

Commodity	Annual Production 1966	1967 <sup>1</sup>	Annual Capacity 1966	1967	Increase in Annual Capacity 1960 to 1966	Consumption Per Capita 1966	Increase in Consumption 1960 to 1966
	(thousands of tons)				%	(lbs.)	%
Newsprint	8,419	8,123	8,878	9,336	16.6	65.8	23.9
Paperboard	1,674e	1,560	1,662	1,715	43.0	147.2	25.6
Book and Writing Paper	587e	717	745	763	73.7	46.7	33.8
Wrapping Paper	424e	447	404	533	49.3	39.2	19.5
					(1960-67)		
Tissue and Sanitary Paper	202e	260	255	265	58.4	21.9	32.7
Wood Pulp	16,004	15,504	17,108	18,158	30.2	_	_
Total Paper and Paperboard	_	_	<del>_</del>	_	_	359.5	24.0

stimate

7 production figures are based on production to September 30, 1967, as reported in the monthly statistical bulletin, C.P.P.A. Source: Canadian Pulp and Paper Association, Reference Tables, July 1967.

<sup>(</sup>i) intentions

The outcome of the great increase in investment expenditures in the pulp and paper industry has been a comparable rise in productive capacity and actual production for most sectors of the industry. The basic capacity of the industry, in terms of annual capacity for wood pulp production, has increased 38.2 per cent from 1960 to 1967. The increase in capacity for book and writing papers was the highest – 73.7 per cent from 1960 to 1966. Newsprint capacity showed the least increase - only 16.6 per cent from 1960 to 1966. It appears that relatively little of the investment expenditures were for the purpose of increasing newsprint capacity. Wrapping paper capacity had increased by only 13.2 per cent from 1960 to 1966; however, a major increase in 1967 has raised capacity by more than 25 per cent in that one year alone. The international character of the Canadian pulp and paper industry has undoubtedly contributed to its spectacular growth in this decade.

On the basis of current domestic per-capita consumption, the Canadian market could absorb only a portion of the maximum output realizable by the different industry sectors. The investment in productive capacity of the industry has been predicated on continuing world demand for papers and paper products. In order to take advantage of the projected growth of foreign markets, emphasis must be placed on encouraging exports.

## Ownership

Variations in the degree of foreign ownership among Canadian industries will have a marked influence on the responses of the industries to changes in trade policy. The management of foreign-owned operations in Canada must be influenced by the economic situation of both the parent operation and the conditions in Canada. In addition, when tariffs are reduced multilaterally, a U.S.-owned subsidiary in Canada might find itself competing with products of its U.S. parent concern. The same situation will apply, of course, to Canadianowned subsidiaries in the United States. The response taken by the subsidiary – or imposed on it – is most significant to this study. 19

The alternatives open to the parent firm range from closing the subsidiary, where production and distribution costs favour the parent operation, to integrating the subsidiary into a branch plant system. In the branch plant organization each establishment could specialize in the most profitable product lines, or continue duplicating production, as before the reduction in tariff protection. The latter

approach would be chosen when economies of scale are insufficient to overcome regional production advantages related to marketing, transportation and distribution costs or other special considerations. The most likely alternative in many instances would be some combination of specialization and regional production which makes use of the existing investment in subsidiary plant. Problems of rationalization, specialization or plant location will be analysed differently by firms that are national in operation from those that have establishments in several countries. International firms have a wider range of alternatives.

In the forest-based industries in Canada there is significant foreign investment and control, particularly among the larger firms. By 1964, non-residents owned long-term investments valued at \$1,703 million<sup>20</sup> in the wood and paper manufacturing industries – an increase of \$158 million from 1963 to 1964 alone, and of \$388 million from 1960 to 1964. The majority of these capital inputs have been in the form of direct investments in branches, subsidiaries and controlled companies. The biggest source of funds is the United States.

More than 40 per cent of total investment in the Canadian pulp and paper industry is U.S. owned. Although the degree of foreign ownership in the wood industries is considerably less, here too between 80 and 90 dollars of every \$100 of foreign-owned investment come from the U.S. In 1962, an estimated 20 to 25 per cent of the total assets of the wood industries was controlled by non-residents (on the basis of assets of corporations which are more than 50 per cent non-resident owned).<sup>21</sup>

In recent years there has been some additional influx of capital from Scandinavian countries, several western European countries, Japan and even India. At the same time, Canadian firms have been seeking American, British and other foreign affiliations and subsidiaries, at least partly for the purposes of

forward integration in production and marketing operations.

R. M. Fowler, President of the Canadian Pulp and Paper Association, highlighting the international aspects of ownership and the said pulp and paper production was moving into the hands of large international corporations and

"if we want rapid expansion of Canadian trade to meet rapidly rising world demand this is the way it will be done; . . . growth based on Canadian efforts alone will be much slower. At the same time, Canadian companies will need to invest extensively in manufacturing and merchandising facilities in developed countries and in new industries in the less developed countries." <sup>22</sup>

## Structure

Historically, our tariff protection has supported the development of domestic producers with a structure suited to the limited Canadian market. As a result of such protection, our paper industry has developed a structure capable of supplying many grades, in short runs, to meet the needs of a small population. A similar situation exists in many other countries, each supporting their own domestic producers. Exports of protected grades of paper from Canadian producers have seldor accounted for more than one-tenth of to production and most exported volume has gone to Commonwealth countries where preferential tariffs exist. In contrast, 93 per cent of the tonnage of newsprint produced in Canada in 1965 was exported.

In order to respond to changing patterns and lower tariffs, our forest-based industries will require restructuring and reorganization. Greater specialization of production in commodities where our producers have the greatest competitive advantages must be emphasized. Within Canada, rationalization can also include geographical concentration of production to take advantage of economies

# Ownership of the Canadian Pulp and Paper Industry, 1963

	Percentage Ownership of Total Investment				
	Canada	U.S.	U.K.	Other Co	untries
Pulp and Paper Industry	48	44	7	1	
All Manufacturing	46	44	8	2	

<sup>1</sup>DBS, Canadian Balance of International Payments, 1963, 1965.

<sup>&</sup>lt;sup>19</sup>For a detailed study of the operations of subsidiary companies in Canada, see "Foreign-Owned Subsidiaries in Canada," Department of Trade and Commerce, 1967.

<sup>&</sup>lt;sup>20</sup>DBS, Canadian Balance of International Payments, 1963, 64, 65. <sup>21</sup>See "Corporations and Labour Returns Act: Report for 1962," Department of Trade and Commerce, 1965.

<sup>&</sup>lt;sup>22</sup>From an address by R. M. Fowler to the Annual Luncheon of the Canadian Pulp and Paper Association, January 1967.

related to raw materials supply, transportation, distribution and marketing advantages. Restructuring will require further capital investments in new or converted plants. Prolion facilities will have to be capable of achieving maximum economies through large-scale production. In the pulp and paper industry this will mean concentrating production in long-run, large-volume, competitive grades of paper for domestic and foreign markets. It is evident that the necessary rationalization of our forest-based industries will require time, assistance and a degree of industry-wide planning and cooperation which is currently unknown and may even be illegal, under our combines laws.

When the structural changes needed for survival in an international market are viewed jointly with the existing ownership patterns in the forest-based industries, one important observation can be made: specialized production can be achieved more easily by internationally based operations than by wholly Canadian establishments.

Most international firms should be in a favourable position to alter their structure in terms of geographic and productive efficiencies. Domestic firms, on the other hand, will become dependent on a reduced number of commodities in which they will specialize by rtue of their comparative advantages. Studres of the pulp and paper industry in Canada suggest that freer trade with the U.S. will favour branch plant operations by the international firms, in contrast to wholly or partially owned subsidiary operations. The duplicate production functions of the subsidiary plant were more suited to the old tariff-protected, self-contained Canadian market.

Restructuring our forest-based industries will require more than a rationalization of production facilities alone. Further integration seems necessary throughout the industries. Increased access by Canadian operations to organizations and outlets in United States and other foreign markets can be expected. An ownership interest in a foreign operation will help overcome institutional and non-tariff barriers to increased trade.

Activities aimed at forward integration and the purchase of foreign firms have been taking place in the Canadian pulp and paper industry. In 1967 a number of mergers and quisitions were effected. Following the con of the Consolidated Paper and Bathurst er Companies, the new organization obtained control of two U.S.-based firms, a

paper converter (Orchids Paper Products Company) and a manufacturer of tissues (Doeskin Products Ltd.). An interest has also been acquired in a British Columbia lumber wholesaling firm (Cooper-Widman Ltd.). The Abitibi Paper Company announced the purchase of an eastern Canada fine paper distributor (Intercity Papers Ltd.).<sup>23</sup> A French industrial combine (Cellulose du Pin of France) acquired an interest in Donohue Bros. Ltd., a Quebec-based newsprint producer. This transatlantic connection is reported to have resulted in a contract for the annual sale of 5,000 to 10,000 tons of newsprint in the French market. MacMillan Bloedel Ltd. is planning to expand its logging activities in tropical areas. The company has acquired an interest in an enterprise which holds cutting rights to 100,000 acres on the island of Bougainville, east of New Guinea. Several other companies are also seeking similar opportunities in Europe and the United States.

Without greater international integration our independent, or non-U.S. affiliated, producers will face marketing handicaps in the U.S. and consumer ignorance about our "foreign" products, grades and specifications. U.S. producers will not face the same degree of unfamiliarity because of the great overflow of U.S. advertising coverage into Canada. Canadian producers will have to make substantial investments in order to gain distributor acceptance for their trade marks and grades. Our firms will also have to provide the range of products and services expected by U.S. and other foreign consumers.

The foreign marketing problems which will be faced by Canadian producers indicate that rationalization through mergers of the smaller firms into financially strong, integrated units is often appropriate. Another approach to the foreign marketing problem is the establishment of an export consortium.

In 1960, an amendment to the Combines Investigation Act was instituted to protect companies which formed a consortium for export purposes from prosecution under the Act. The amendment requires that cooperation in the export market be insulated from behaviour in the domestic market. A consortium acts as a common sales agency for all member companies. The advantages of a common export sales agency include lower costs of transportation and marketing through large-scale operations, better sales coverage and lower costs for the individual member. The consortium can offer the foreign buyer a

wider range of products and larger quantities than would be available from a single company. A consortium would also have a better credit standing for financing sales than an individual firm. The greatest obstacle in operating a successful consortium lies in achieving a mutually acceptable allocation of sales among competing member firms.

Two forest industry groups operating as export consortia are Quebec-based Canexco and Seaboard Lumber Sales operating from British Columbia. Canexco comprises 20 companies exporting softwood lumber and pulpwood to western Europe. Seaboard Lumber Sales represents a number of western lumber producers in European markets.

# **Anti-Dumping Restrictions**

Current anti-dumping regulations ensure that producers in Canada and the United States will offer their products in the other country at prices not lower than their own domestic market prices. In Canada, anti-dumping penalties apply if an item is priced below its home market price. In the U.S., an imported good sold below its home market price must injure local manufacturers before anti-dumping penalties are applied. A new, less protective anti-dumping code similar to that of the United States has been accepted by Canada in the Kennedy Round negotiations and is to be effective no later than July 1968.

Some Canadian pulp and paper manufacturers have contended that U.S. anti-dumping regulations are a serious barrier to increased paper exports - under current price differentials.<sup>24</sup> Although the actual application of American anti-dumping regulations to the protected paper grades has not been widespread, its effect has been to discourage exports of Canadian papers and boards, apart from the prevailing rate of duty. In order to compete in the U.S. markets, prices of many exported papers will have to be lowered. Unless domestic prices are also reduced to the export price level, U.S. anti-dumping duties could be imposed. A reduction in U.S. tariffs can be of no practical value to Canadian manufacturers with higher domestic prices, because of the anti-dumping prohibition on selling in the U.S. at American prices. On the other hand, the Canadian anti-dumping regulations do not exclude the less costly U.S. goods.

With the forthcoming reductions in our own protective tariffs, Canadian producers will be forced by import competition to lower their domestic prices to a level somewhat

<sup>&</sup>lt;sup>23</sup>See also the acquisition early in 1968 of Cox Newsprint Inc. of Augusta, Georgia, a southern U.S. newsprint producer, by Abitibi.

<sup>&</sup>lt;sup>24</sup>See also CEMA report, Non-tariff Barriers to Trade, 1967.

closer to U.S. market prices. The necessity for our producers to compete in the new continental market, coupled with the threat of anti-dumping penalties, will be a strong inducement for the establishment of parity prices in North America for many forest products.

# Government Assistance to Industry

The federal government is expected to provide some assistance to firms to adjust to new trading conditions. In January 1966, the President of the C.P.P.A. stated that in the event of major reductions and exposure to U.S. competition "the adoption of a policy of adjustment assistance is an essential first step to enlist active and understanding support (of the domestic industry) for the reduction of trade barriers and to stimulate the industrial changes needed to compete actively in world markets."

The industry feels an assistance program should be flexible so that the specific problems of each establishment may be dealt with effectively. The need for assistance will vary from one mill to another, depending on size, type of production, opportunities within the company to engage in alternative types of production and the availability of alternative employment for workers in the area.

The system used by the EEC for the exposed industries of member countries provides assistance to those industries to help them re-establish in other lines or in different locations. The system includes cash compensation for the dislocation of factories and "trade adjustment allowances" for plants closed as a result of the tariff cuts among members.

The details of assistance programs being planned by the federal government are not yet available.<sup>25</sup> Trade officials are planning extensive consultations with industries and trade associations on anti-dumping legislation. Similar consultations have already been held in several cities to outline Canada's tariff concessions in the Kennedy Round and the new export opportunities available as a result of other countries' tariff reductions.

A model assistance program exists in the Auto Industry Adjustment Assistance Board, set up to help companies and workers affected by the auto pact. In order to encourage more efficient operations in the domestic auto parts industry the government has made provisions for loans at six per cent interest to help parts manufacturers expand production; assistance is also available to workers displaced through

adjustments in the auto industry. Similar forms of transitional assistance encouraging adjustment and rationalization for the newly exposed industries such as paper converters could be instituted by the federal government.

Government spokesmen have suggested that capital, in the form of loans rather than grants, might be made available to companies whose business is seriously injured by the tariff reductions. An agency such as the Canada Development Corporation could be used in a role similar to that of the Auto Industry Adjustment Assistance Board and could act as a large-scale lending agency. The government has also indicated that there will be more emphasis on research and development to maintain and improve Canada's long-term trade prospects. The need for specific measures of assistance beyond the provision of a cheap source of capital is uncertain at this stage.

Disruptions to Canadian manufacturing firms, including the forest product manufactures, will not occur suddenly, as tariff changes will be phased over some years. The new anti-dumping code for Canada will have more immediate impact on the manufacturing industries than the more gradual scheduling of tariff changes here and in other countries.

Various incentive schemes to encourage Canadian exports could be established by the federal and provincial governments. Some form of direct assistance, such as export subsidies to manufacturers, would be disallowed under GATT regulations. Other government activities, such as the provision of export credit services, export insurance and trade promotions, acceptable under GATT, are already available to Canadian exporters. Tax relief, such as accelerated depreciation allowances and remission of sales and other "overhead" taxes on export goods, is another area where export incentives can be provided.<sup>26</sup> In the light of the Kennedy Round results, both the Ontario and the federal governments, are currently emphasizing their established programs for trade promotion and export credit and insurance services. The expansion of these programs can be particularly useful to the forest-based industries.

# Addendum

The Kennedy Round Adjustment Assistance Program for Secondary Industry

In a speech to the Canadian Manufacturers Association on January 31, 1968 (reported in *Industrial Canada*, March 1968), the Honourable C. M. Drury said:

The (Adjustment Assistance) program's chief features will be the offer by the Government of insurance of the major share of the risk on industrial assistance loans by private lenders; direct Government loans in cases of defined hardshi and technical assistance to manufacturers in preparing adjustment proposals for the purpose of improving their production, managerial, marketing and financial operations.

The program will be administered by a Board to be established under the Department of Industry Act. The services of the Department of Industry and its various branches will be made fully available to the Board and to eligible firms seeking assistance. The fullest possible use will be made of the experience gained from the automotive Adjustment Assistance Program.

(The program) has two principal objectives: first, and most important, to derive as much benefit as possible from the widening markets and increasing scope for specialization and longer production runs; second, to assist firms which are adversely affected to adapt to more competitive conditions

## **Summary and Conclusions**

Important changes in trading conditions are taking place in the major foreign markets for Canadian forest products. As a result of the elimination in January 1967 of internal tariffer among the EFTA member countries, Canada's preferential trade position in the U.K. market has been effectively reduced and Canadian forest products exports face increased competition in Britain. In addition, Britain's application for membership in the EEC would, if successful, probably result in the complete elimination of the Commonwealth preferential tariff rates now offered by the U.K.

The major western European exporters of paper and board products are Finland and Sweden. Both countries are members of EFTA and are reported to be seeking EEC membership. Because of their lower transportation costs, forest products from Finland and Sweden have advantages over most North American commodities in the British and continental European markets. If the Nordic countries gain free access to the EEC market through membership in the Community, their export opportunities throughout Europe will only be limited by the eventual shortages of additional domestic timber supplies.

The greatest short-term rate of expans of demand for forest products is expected occur in the European and Japanese markets.

of Industry has since revealed an adjustment assistance program which is to include a loan fund of \$10 million for the first year. (See addendum.)

<sup>&</sup>lt;sup>26</sup>For an analysis of the effects of tax structures on international trade see "Border Tax Adjustments" in the OECD Observer, No. 30, October 1967.

Britain and Germany are now the major European importers of paper and board products. Unfortunately, the tariff reductions offered by the EEC in the Kennedy Round, not substantially opened up that market for many Canadian forest products. The tariff-free quota of 1.9 million metric tons has been retained by the EEC for wood pulp imports. The newsprint tariff rate, applicable after reaching a tariff-free quota of 625,000 metric tons, has not been reduced.

Although the actual enlargement of the EEC to include Britain, Sweden or Finland is unlikely in the near future, the Canadian Government must continue to work for greater trade opportunities with the Community. The potential market in the EEC for Canada's forest products is important both in itself and as a counterbalance to our singular dependence on the U.S. market. For Canadian firms interested in improving their access to the EEC market, the vigorous development of affiliations with European companies would be valuable. The nationalistic outlook of France and the current European disfavour with the extent of U.S. acquisitions of European firms might provide the independent Canadian companies with an advantage over their U.S. competitors.

In the more immediate future, our induses will be influenced by the Kennedy Round tariff reductions which will be implemented over the next five years by Canada and the United States. It appears that the general influence of these tariff adjustments will be an overall increase in trade with the U.S. There may be a tendency toward parity prices in the new continental market for our previously protected forest products. Some slight lowering of the producers' domestic prices may occur due to increased U.S. competition and in order to take advantage of opportunities in the American market without fear of U.S. anti-dumping penalties. In addition, prices of manufacturing inputs such as production machinery should be somewhat lower as a result of tariff reductions on these commodities. There should be some further specialization by the forest products manufacturers in their most internationally competitive product lines, particularly for papers and other secondary manufacturing operations. In line with this specialization, outlets in the U.S.

be increasingly important for the Canan forest products manufacturers. Another important aspect of a move toward continental rationalization of production will be the response of U.S.-owned subsidiaries in Canada. A recent Economic Council of Canada survey of future investment plans of a sample of companies in Canada reports:

Particular uneasiness was expressed by a number of subsidiaries of foreign companies. Under lower Canadian tariffs, such foreign companies it was feared, might find it advantageous to build larger plants outside of Canada to supply the Canadian market as well as their home market, rather than to establish or expand manufacturing facilities in Canada.<sup>27</sup>

Because Canada has large raw material supplies, the exclusive development of sites outside of Canada is not a serious possibility for the primary sectors of the forest-based industries. It is, nevertheless, a possibility which will have to be kept in mind for some of the secondary manufacturing establishments. The solution to this potential problem could become more important if the two countries move further toward bilateral free trade in forest products.

It appears that the federal government will next attempt to achieve trade liberalization in forest products and some other industrial sectors on a broad regional basis. A regional grouping which would be favoured by Canada for sectoral trade agreements would encompass the United States, the EEC and EFTA countries, and any others who wished to join. Public opposition to a Canada-U.S. free trade area approach, and the serious problems related to industrial structure, ownership and market characteristics will probably delay for some years the development of a limited, bilateral forest products free trade agreement. Further specialization, rationalization and efficiency of production – developments which will be encouraged by the tariff reductions - must be achieved by the protected sectors of the forest-based industries before a limited bilateral agreement can be rewarding.

Apart from sectoral free trade for forest and mineral products throughout the world, some other policies for trade liberalization are also being advanced by Canada. With the final implementation of the new Kennedy Round tariff rates, non-tariff barriers will be the most important obstacle to access to foreign markets. Reducing these barriers on a world-wide scale is a long-range objective.

Another objective of the federal government is the expansion of trade between the developed and developing nations. Worldwide free trade in tropical products has been proposed by former Trade Minister Robert Winters. If the proposal is accepted by other countries, it might produce some additional competition in the future for our own forest-based industries. Extractive industries based on forest resources are a potentially important sector of the economy in many tropical countries. However, on economic grounds alone the merits of encouraging these developing markets outweigh any minor negative aspects of the policy.

The government's future trade policies must continue to have as their objective "the balanced growth of the Canadian economy." The objective can be achieved through the expansion of an efficient manufacturing sector, including the secondary industries. Canada's trade policies, as they affect the forest products trade, must be bolstered by government encouragement to industry.

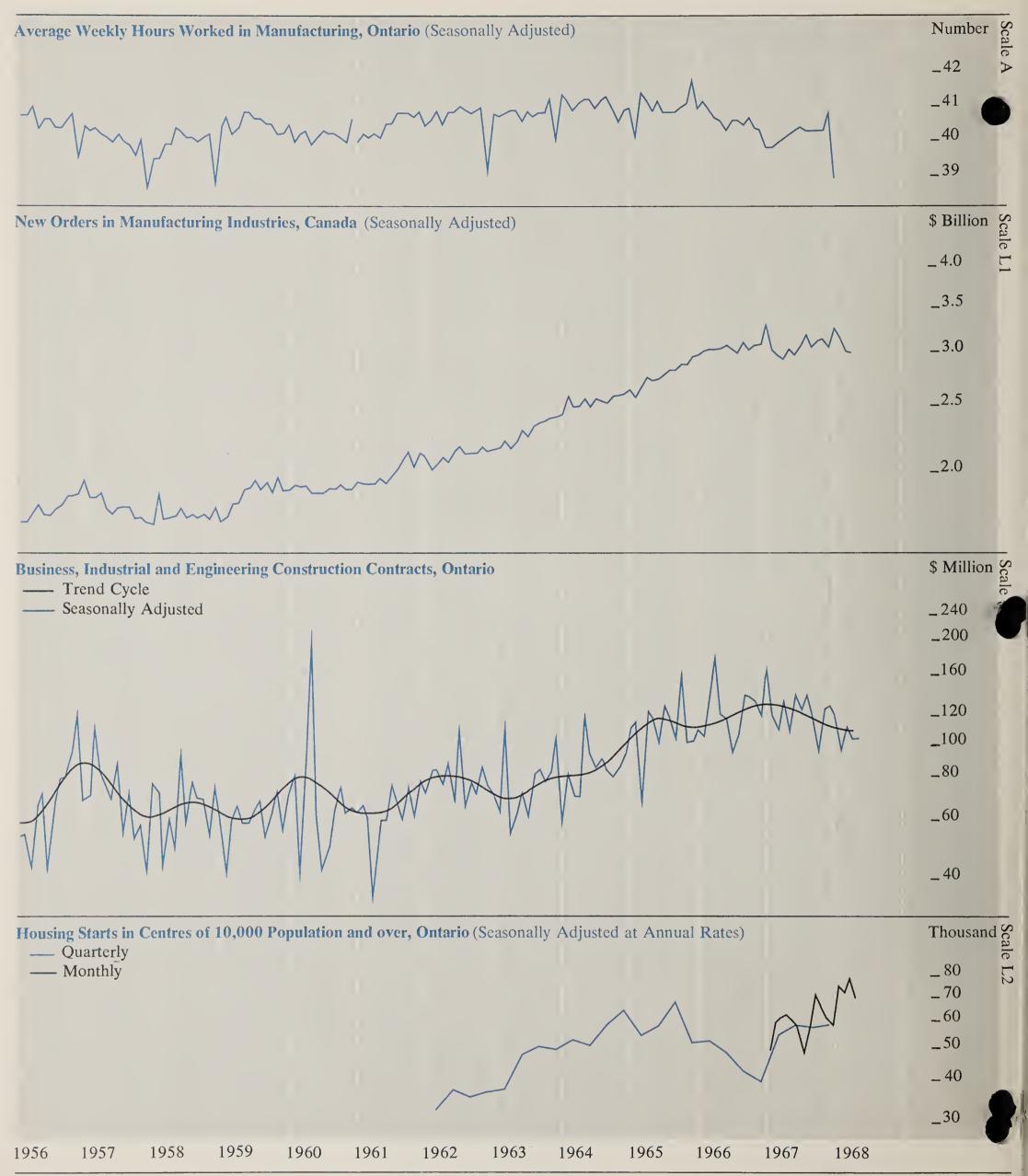
The manufacturers themselves will also have to put forth maximum effort to achieve efficiency of production, to successfully penetrate foreign markets and to face increased competition in their home market. A stronger marketing effort will be required in the U.S. and other countries, perhaps through export consortia.

The relatively long period and the gradual implementation of the new tariff rates will provide time for government and industry to recognize and plan the treatment of any emerging problems. In order to gain sufficient warning, close contact with the affected sectors of the forest-based industries will have to be maintained over the implementation period.

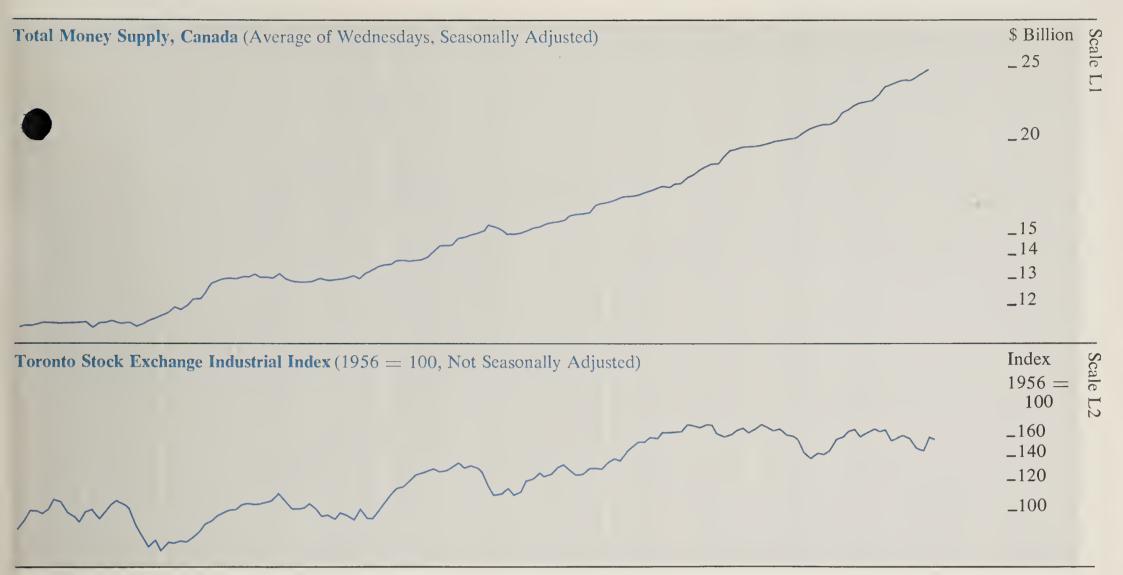
This report has been prepared before the actual application of the new tariff rates and, in that sense, is a preliminary analysis. Continuation of studies of the effects of changing trade policies on the forest-based industries is very essential, as the consequences of the tariffs and shifting trading patterns become clearer. The eventual adjustments and opportunities facing Ontario's forest-based industries will have a significant effect on the total economy and on the forestry-oriented northern regions in particular.

# Selected Economic Indicators

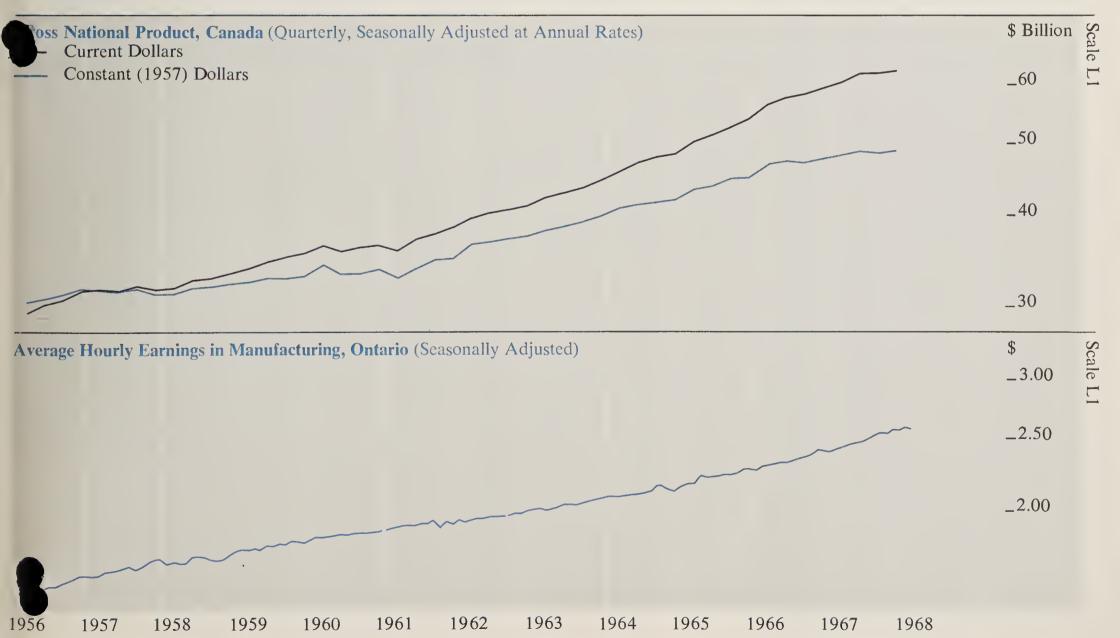
**Leading Indicators** 



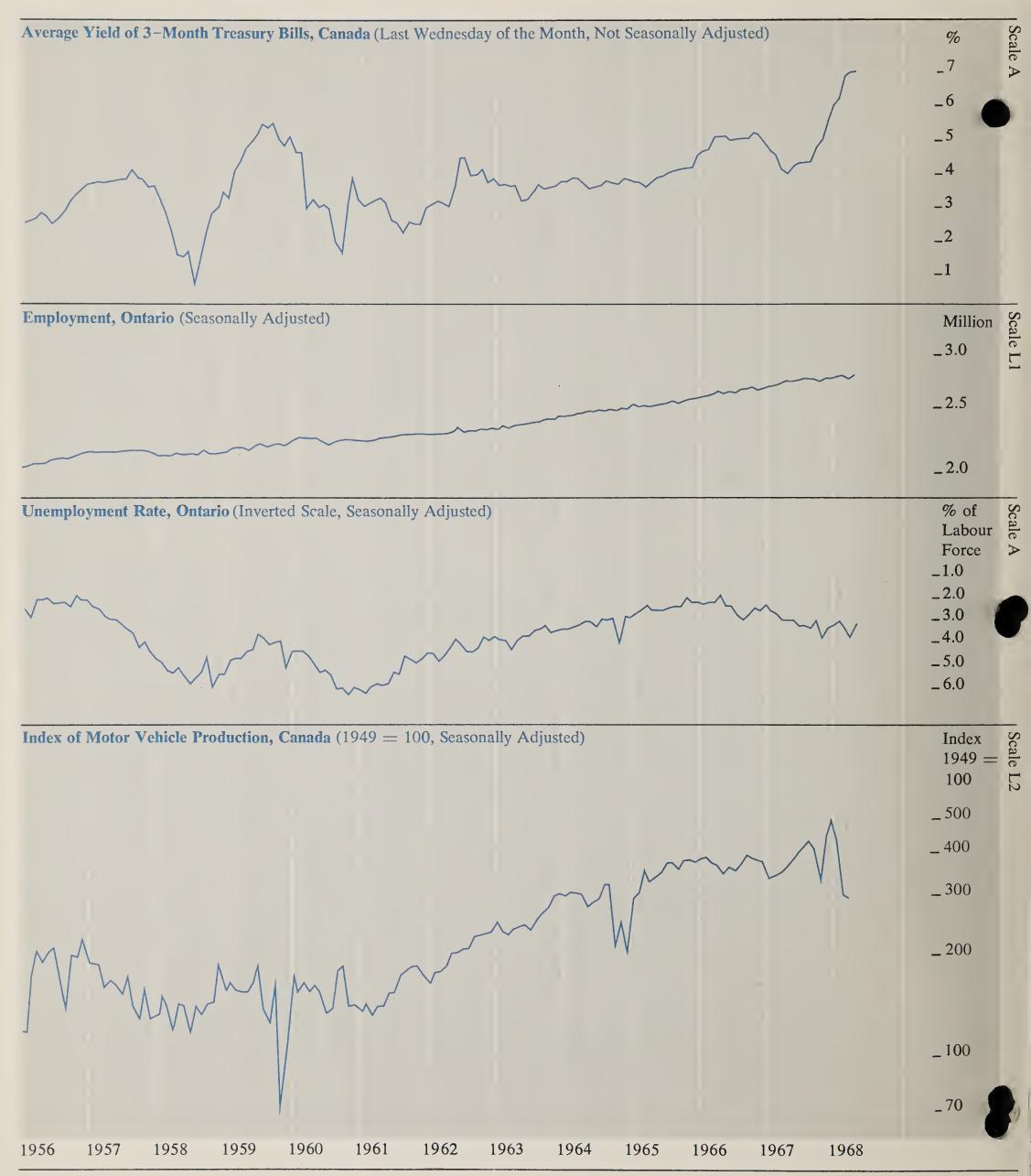
### **Leading Indicators**



### Coincidental and Lagging Indicators



### Coincidental and Lagging Indicators



# **Economic Indicators**

Seasonally Adjusted

		1967										1968			
		Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dee.	Jan.	Feb.	Mar.	April
Le g Indicators															
Average Weekly Hours Worked in															
Manufacturing	Number	40.1	40.2	40.3	40.4	40.5	40.4	40.4	40.4	40.4	40.0	20.0			
New Orders in Manufacturing Industriesc	\$ Million	2,981	3,094	3,024	3,117	3,242	3,107	3,161	3,178	3,118		39.9	2.0.00		
Business, Industrial and Engineering		, , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-,	2,,	٥,٢١٢	5,107	3,101	3,176	2,110	3,308	3,215	3,060	3,045	
Construction Contracts	\$ Million	138.2	112.9	143.5	129.0	129.3	121.6	99.2	129.7	133.0	125.4	00.0			
Urban Housing Starts	Number	61,300	62,700		57,800	48,900	57,500			61,000	120	,,,,	114.5	105.1	105.4
Money Supply	\$ Million	22,092	22,307	,	. ,	22,797	23,191	. ,	,		58,700 24,147	, -	,	, , , , , , ,	,
T.S.E. Industrial Index <sup>u</sup>	1956 = 100	165.09	168.28	161.44	164.54	169.66	166.85	168.72					24,480		. ,
Business Failures <sup>u</sup>	Number	59	73	40	59	52	26	34		161.60			150.24		160.4
Business Failures - Liabilitiesu	\$ Million	2.7	2.6	3.3	2.9	3.2	4.1		79	43	73		59	87	52
	ψ 1141111011	2.,	2.0	5.5	2.9	3.2	4.1	2.6	16.6	2.9	24.3	2.6	1.8	5.6	6.4
Coincidental and Lagging Indicators															
Gross National Product <sup>c</sup> (Annual Rate)	\$ Million	60,836			62,072			62,372			62,992				
Average Hourly Earnings in Manufacturing	\$	2.46	2.47		0.51										
3-Month Treasury Bill Ratec,u	%			2.49	2.51	2.55	2.56	2.56	2.58	2.58	2.60	2.59			
Cheques Cashed in Clearing Centres <sup>1</sup>		4.13	4.00	4.24	4.28	4.32	4.34	4.76	4.95	5.46	5.95	6.29	6.80	6.98	6.99
Retail Trade	\$ Million	4,657	5,088	4,964	5,154	5,121	4,983	5,133	5,081	5.459	5,485	5,006	4,959		
Labour Force	\$ Million	711	720	707	761	728	749	773	757	770	761	789	775		
	000's	2,816	2,830	2,835	2,844	2,862	2,860	2,851	2,853	2,860	2,856	2,857	2,892	2,869	2,890
Employed	000's	2,729	2,742	2,748	2,750	2,767	2,763	2,762	2,746	2,764	2,762	2,769	2,793	2,760	2,796
Unemployed	000's	87	88	87	94	95	97	89	107	96	94	88	99	109	94
Unemployed as % of Labour Force	%	3.1	3.1	3.1	3.3	3.3	3.4	3.1	3.8	3.4	3.3	3.1	3.4	3.8	3.3
Wages and Salaries	\$ Million	1,034	1,045	1.051	1,053	1,064	1,071	1,075	1,070	1,086	1,094				
Index of Industrial Employment	1961 = 100	125.5	125.3	124.7	124.4	124.9	124.6	124.6	124.4	125.7	125.8	126.1	124.3		
Index of Industrial Production <sup>c</sup>	1949 = 100	277.1	280.7	280.0	280.8	283.6	284.6	284.3	282.4	289.4	291.0	288.2	284.9	286.1	
Total Manufacturing <sup>c</sup>		246.3	249.7	246.9	247.3	249.0	250.9	251.7	247.5	256.3	257.1	253.1	248.6	250.1	
Non-Durables <sup>c</sup>		241.0	244.5	242.7	245.1	243.8	245.0	246.0	246.2	249.0	247.1	247.1	249.9	255.0	
Durablesc		252.5	255.7	251.8	249.9	255.2	257.7	258.3	249.0	264.8	268.9	260.2	249.9	244.6	
Miningc		401.9	411.4	415.4	424.2	428.4	426.2	421.9	431.2	425.7	440.7	422.8	433.2	437.6	
Electric Power and Gas Utilitiesc		541.9	539.1	563.2	555.1	572.9	565.5	555.8	568.0	571.7	572.9	605.9	597.0		
Primary Energy Demand (Annual Rate)	BKWH	50.41	50.59	51.86	50.15	51.03	51.80	51.27	52.40	53.80	52.99	55.51	55.34	582.8	
Exports (including re-exports)c	\$ Million	897.8	971.0	951.3	962.6	914.5	925.2	861.3	956.7					54.23	
Imports <sup>c</sup>	\$ Million	850.9	969.5	911.2	893.5	928.6	900.1	921.8	889.5	882.5	1,023.0 928.7		1,142,8 1,093.9	968.1	
Unclassified Indicators															
Foreign Exchange Reservesc,u	II C C M:III:-	2 202	2.100	0.105	0.166	0.405									
Industrial Materials Price Indexc,u	U.S. \$ Million	2,203	2,188	2,195	2,169	2,183	2,198	2,221	2,303	2,277	2,268	2,175	2,490	2,244	2,416
Consumer Price Index <sup>c,u</sup>	1935-39 = 100	252.2	252.5	254.6	256.7	253.0	252.0	251.2	250.1	252.9	254.3	253.8	252.4	253.0	
Consumer Price Index.	1949 = 100	146.5	147.8	148.1	148.8	150.2	150.9	150.7	150.5	151.0	151.8	152.6	152.7	153.2	
Statistics for Canada.	_						_								
"Not seasonally adjusted															

<sup>u</sup>Not seasonally adjusted. <sup>1</sup>Ontario less Toronto.

# REFERENCE COPY





# Ontario Economic Review



May/June 1968 Volume 6, Number 3

**Treasury Department-Finance and Economics** 

Hon. Charles S. MacNaughton, Treasurer of Ontario H. Ian Macdonald, Deputy Minister







# Ontario Economic Review

May/June 1968 Volume 6, Number 3

# The Ontario Economy

# 4

# Potato Marketing in Ontario

L. Bodnar, *Economist* **Treasury Department**, Finance and Economics

# Selected Economic Indicators

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A publication of the Treasury Department – Finance and Economics Government of Ontario

Hon. Charles S. MacNaughton
Treasurer of Ontario
H. Ian Macdonald
Deputy Minister

The Ontario Economic Review is prepared and edited bimonthly in the Economic Analysis Branch of the Economic and Statistical Services Division, Treasury Department, Finance and Economics. The review presents articles of interest as well as current information on economic activity in Ontario. Signed articles reflect the opinions of their authors and do not necessarily represent the views of the Department.

Subscriptions can be obtained free of charge by writing the Editor, *Ontario Economic Review*, Treasury Department, Finance and Economics, Frost Building, Queen's Park, Toronto 5, Ontario.

### **About the Review**

The feature article for the May-June edition of the *Ontario Economic Review* analyses the main aspects of the marketing of table potatoes in Ontario and evaluates the impact of the changing pattern of marketing on the structure of the potato growing industry. Relevant information was obtained primarily through field surveys and personal interviews supported by official statistical data.

The article was prepared by Mr. L. Bodnar, Economist with the Economic Planning Branch in the Policy Planning Division of the Treasury Department, Finance and Economics. Statistical design and numerical analysis were carried out by the Ontario Statistical Centre in the Statistical Services Division of the Department. The project was initiated in the Applied Economics Branch of the Office of the Chief Economist, prior to the recent merger of that office with the Treasury Department.

### **Indicator Charts, Pages 13-15**

Fluctuations in aggregate economic activity—commonly used to define business cycles — do not necessarily correspond with fluctuations in the individual activities which make up the aggregate. Instead different indicators of economic activity may vary with respect to both their rates of growth and the timing of their peaks and troughs: some may grow more rapidly than others, some change direction sooner.

Those activities which tend to assume a direction in advance of the aggregate — because they relate to future rather than present production — are referred to as leading indicators, and are widely used to anticipate the short-run future course of the overall economy. The charts on pages 13-15 in the *Ontario Economic Review* present a number of these leading indicators, as well as several which are coincidental to or lag behind the aggregate, to provide for the reader an opportunity to make such an evaluation.

While comparisons of the timing and direction of general changes in the various indicators can readily be made, great care must be exercised in making such a comparison of the amplitude of fluctuations. Of the three vertical scales used – 'A' (arithmetic) and 'L1' and 'L2' (logarithmic scales with one and two cycles respectively over a given vertical distance) – only the logarithmic scales can be used to compare relative changes in different indicators. And this applies only when all series being compared are on the same logarithmic scale. In such a situation all parallel lines represent equal rates of growth, the exact rate of growth being determined by the slope of the line.

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# The Ontario Economy

### **Gross National Product**

The pace of the Canadian economy accelerated during the first quarter of 1968 after than six months of slow growth. Intly published DBS figures indicate that National Product increased by 2.9 per cent over the fourth quarter of 1967 to an annual rate of \$64.8 billion. After allowing for about a one per cent rise in prices, this gain was reduced to two per cent in real terms. The advance occurred despite major strikes in the automotive industry.

Using the purchasing value of the Canadian dollar in 1957 as a base, GNP in January, February and March was running at an annual rate of \$50.18 billion. This was an increase of 3.3 per cent from the corresponding figure a year earlier and 1.9 per cent from the final three months of 1967.

An increase of over four per cent in total final demand provided evidence of a quickening in economic activity. This was reflected in significantly higher exports which were largely attributable to the considerable upsurge in the U.S. economy. The rise of over three per cent in Canadian final domestic demand was also unusually high. Contributing significantly were the increase in gross fixed capital formation and the marked sceleration in consumer spending. Almost lift of the increase in demand was met by foreign supplies, as total imports rose strongly in line with exports.

The percentage increases in total exports and imports of 8.8 and 10.4 per cent respectively were among the largest on record. In addition to the stimulus provided by buoyant economic conditions in the United States, Canadian merchandise exports, especially of motor vehicle parts and of metals, were helped by special strike-oriented factors in that country. A sharp rise in the rate of investment in machinery and equipment contributed to the increase in imports. In absolute terms the deficit on current account (on a National Accounts basis) remained small relative to recent experience; it rose from \$152 to \$396 million, entirely due to adverse movement in invisibles.

### Construction

Southam Building Guide recorded reduced values for construction contract awards in Ontario in May compared with last year. A plue of \$216.9 million was 19.4 per cent ow the May 1967 value of \$269.2 million. This is largely a reflection of the significantly reduced levels of residential, industrial

and engineering construction activity. In May, for example, residential construction awards were \$84.9 million, down \$30.1 million or 26.2 per cent from \$115.1 million in May 1967. In the province both apartment and residence contract awards were lower by 40.6 and 10.2 per cent respectively, than in May 1967. In Toronto similar awards were lower by 49.7 and 7.1 per cent respectively for the corresponding period. Industrial awards were down 24.4 per cent as manufacturing and processing plant awards dropped by \$12.5 million. Engineering awards dropped sharply by 24.6 per cent while business construction awards rose by 21.3 per cent to \$16.4 million.

Large construction awards for the month of May, each valued at \$1.0 million or more, totalled \$97.9 million. Some are listed below.

Despite the fact that total 1968 Canadian construction contract awards have established a new all-time record high for this five-month period, Ontario's five-month performance is down 5.3 per cent from the corresponding period in 1967. Cumulative gains have been recorded for four construction categories in all geographical regions of Canada except Ontario. In the January to May period this year, Ontario's total construction awards reached \$860.8 million, down \$48.3 million from the same period in

1967. Reduced total values were recorded in industrial construction awards, down 37.6 per cent to \$104.6 million and engineering awards, down 37.4 per cent to \$121.8 million. Buoying up the overall total for the fivemonth period has been the significant 44.6 per cent increase in total business construction awards, rising from \$72.2 million to \$104.5 million and more moderate increases of 11.6 per cent and 11.7 per cent for residential and institutional awards respectively.

In residential construction activity the actual number of housing starts for the month of May totalled 8,578, a rise of 4.4 per cent over the 8,213 units started in May 1967. After allowing for seasonal fluctuations, May activity represented an annual rate of 63,200 units compared to 69,200 in April of this year. Housing starts in Ontario centres of 10,000 population or more were 22,498 units for the year to date which is 24.4 per cent higher than the 18,087 units started in the January to May period last year. May starts in Toronto at 4,313 brought the cumulative total to 12,238, 25 per cent higher than last year. The cumulative totals and percentage changes for other major centres in Ontario were as follows: Hamilton, 1,978 units, up 35.2 per cent; Ottawa, 1,214 units, up 9.1 per cent; Kitchener, 1,033 units, up 12.0 per cent; London, 1,279

### Large Construction Awards Placed Recently in Ontario

Location	\$ Million	Description
Brampton	1.0	Bridge
Cornwall	1.8	Plant Addition
Galt	1.1	Apartments
Gloucester Twp.	1.2	Housing
Hamilton	2.5	Apartments
Hamilton	8.0	Schools
London	13.6	Schools
Oakville	2.2	Apartments
Ottawa	1.1	Public Bldg, additions
Pickering	1.2	Pumping Station
St. Catharines	2.0	Store
Toronto (metro)	14.1	Apartments
Toronto	9.2	Rapid transit projects
Toronto	6.9	Sewage plant addition
Welland	1.0	Office building
Windsor	3.8	College building
Various locations	19.9	Provincial highway and
		bridge contracts

Source: Southam Building Guide.

The Ontario Economy

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Dwelling unit completions numbered 3,835 in May, bringing the total to date for 1968 to 19,408 — up 1.0 per cent for the

January to May period of 1967. With the exception of Metropolitan Toronto all of the above-mentioned centres have had a greater number of housing completions this year. At May 31, 1968, there were 46,914 dwelling units under construction in urban Ontario, 36.2 per cent more than the 34,448 units under construction one year earlier.

### **Productivity Trends**

The Dominion Bureau of Statistics recently reported that during 1967, output per manhour in the nonagricultural industries of Canada increased by 1.7 per cent over the preceding year. This was a smaller gain than the increase of 2.7 per cent recorded for 1966. On an output per person employed basis, the gain was even less, at 1.3 per cent, because of the decrease in average hours worked which occurred. While in past years slackening productivity has generally seemed to accompany sharp rises in output and especially employment, the 1967 slowdown was associated with moderating growth rates for both these variables.

As the most important single sector in the nonagricultural aggregate, manufacturing was largely responsible for the small productivity increase. The annual gain in output per manhour decreased from 2.6 per cent in 1966 to 1.4 per cent in 1967 in manufacturing, while the corresponding gains in output per person dropped from 2.0 per cent to 0.9 per cent. In the nonmanufacturing industries, output per man-hour increased during 1967 by 2.1 per cent, compared to 2.6 per cent in the previous year, and output per person by 1.6 per cent, the latter rate being the same as in 1966.

In 1966, the above-average crop in agriculture had resulted in an unusually large productivity increase in that sector and contributed importantly to the 4.6 per cent and 3.6 per cent increase in output per man-hour and output per person respectively for total industrial activity. In 1967, however, an 8.0 per cent decrease in agricultural output and a simultaneous increase in labour input resulted in absolute decreases in agricultural productivity of 8.8 per cent for output per man-hour and 10.5 per cent for output per person employed. Consequently, for the commercial industries as a whole, the increases of output per man-hour and per person were 0.8 per cent and 0.2 per cent respectively.

In the United States, output per person employed in the total private economy during 1967 increased by 0.2 per cent, that is by the same amount as in the coponding sector of the Canadian econ although the increase of 1.4 per cent in output per man-hour was somewhat larger than in Canada, because of the greater decrease in average hours worked. However, these figures reflect quite a different experience vis-a-vis Canada in the industrial components of the aggregate, particularly in the case of agriculture, where above-average productivity gains of about 10 per cent occurred during 1967.

In the private nonagricultural sector, on the other hand, last year's increase of 0.9 per cent in output per man-hour was about half the corresponding increase in Canada, and output per person employed actually decreased by 0.3 per cent. Output per manhour increases in the manufacturing and nonmanufacturing sectors of the private U.S. economy were 0.8 per cent and 1.1 per cent respectively in 1967 as against 2.2 per cent and 2.6 per cent in 1966. Output per person in the manufacturing sector decreased by 0.4 per cent while remaining unchanged in nonmanufacturing sector in 1967. In 196 these sectors experienced increases of 2.3 per cent and 1.7 per cent respectively.

# B and B's Recommendations and Ontario

The first volume of the Report of the Royal Commission on Bilingualism and Biculturalism called for official bilingualism in Ontario and New Brunswick and for the creation of bilingual districts in eight provinces. Only British Columbia and Newfoundland were exempted from this latter recommendation.

The first volume entitled "The Official Languages" was released on December 5, 1967. Its recommendations applied both to the provinces and to the federal government. Among the provinces, Ontario and New Brunswick received the most attention: the Commission recommended that both provinces recognize the English and French languages in their legislatures, public services, schools and courts. Of the 54 suggested bilingual districts in Canada (that is, in places where there is an official-language minority of 10 per cent), 43 are in Ontario, Quebec and New Brunswick.

When the Report was released, Quebec was the only officially bilingual province. At the Federal-Provincial Conference of Prime isters and Premiers held in Ottawa, Feby 5 to 7, New Brunswick followed suit. When New Brunswick passes its Official Languages Act this fall or early next year, 87 per cent of all Canadians of French mother tongue will be living in provinces where the French and English languages will be recognized in statutes.

The Commission also said that Manitoba (with 61,000 French-speaking residents according to the 1961 census) and Nova Scotia (with 40,000) "may of their own volition even wish to become officially bilingual provinces." Other provinces could become bilingual as soon as their language minority reaches 10 per cent of the population, the Report recommended.

In the officially bilingual provinces, the Report suggested: (1) that both English and French be used in the debates of the legislatures and in legislative publications; (2) that judicial services be provided in both languages, including appeals to higher courts; (3) that education be provided in both languages; (4) that municipal governments ake administrative services available in both languages; and (5) that all government offices in bilingual districts be staffed with both English and French-speaking personnel.

### Ontario's Position

Ontario's sympathy with most of the recommendations was apparent even before the Report was released — as was evident at the Confederation of Tomorrow Conference. On February 5, during the opening session of the Constitutional Conference, Prime Minister John Robarts expressed Ontario's position, "We endorse the guiding principle and spirit of the first volume: that both official languages be recognized wherever the minority is numerous enough to be viable as a group."

However, he emphasized (as did the Report) that an "officially bilingual province" did not mean that everybody in the province would speak or would have to speak two languages. Only the major public institutions would provide bilingual services to citizens,

most of whom could and would likely be unilingual.

Mr. Robarts announced he would propose by resolution at the February opening of the Ontario Legislature that any member should have the formal right to address the Legislature in either English or French. He also announced that selected civil servants would be given French-language training; that all correspondence received in French would be answered in French; that field offices of Government departments in French-speaking areas would be encouraged to provide services in French; and that the Government would expand its translation bureau.

In municipal administration, he stated, the use of both English and French would be encouraged in French-speaking areas by such steps as:

- the employment of bilingual staff;
- the provision in both English and French of assessment notices, water bills, voters lists, etc.;
- the design of road and traffic signs that could be readily understood by everyone;
- the amendment of the Municipal Act so that a record of council meetings could be kept in French as long as English translations were available for use in the courts or before the Ontario Municipal Board;
- the investigation of feasible ways to reimburse cooperating municipalities for such extra expenses as might be involved in providing bilingual services.

In the administration of justice Mr. Robarts stated that Ontario would examine the possibilities of meeting the expenses incurred for appropriate interpreters and translation services in any pleading or process before courts under provincial jurisdiction. The use of bilingual court documents in areas with sufficient French-speaking residents would also be studied. And, in education, he had already announced on August 24, 1967 that French-language secondary schools

would be established within the public school system.

Finally the Prime Minister reported that his Government had established four task forces — each to investigate the feasibility of implementing the recommendations of the B & B Report concerning (a) the administration of justice; (b) the Legislature and provincial statutes; (c) municipal administration; and (d) the provincial public service.

### Progress Since February 5

Since the enunciation of the Ontario position, the four task forces have been meeting. They are composed of officials from the departments concerned and from the Federal-Provincial Affairs Secretariat of the Treasury Department. The Secretariat is responsible for coordinating the work of the four task forces which will submit their reports to the Prime Minister during the summer. Further investigations are likely to be undertaken on other aspects of this first volume: for example, on the question of bilingual districts and on the contents of other volumes of the Report which will be published over the next year.

Legislation to establish French-language secondary schools was introduced in the Ontario Legislature on May 30 by the Minister of Education who said: "With the creation of French-language schools at the secondary level, there will be assured to every French-speaking student in the province the opportunity to receive his education from kindergarten through university . . . in the language of his choice."

An important step taken at the Constitutional Conference in February was the consensus on language rights. Both the provinces and the federal government recognized that French-speaking Canadians outside of Quebec should, as a matter of equity, have the same rights as English-speaking Quebecers in Quebec. They also agreed that governments should act to ensure these rights. An Official Languages sub-committee of the Continuing Constitutional Conference has been established to discuss methods of implementation and possible constitutional amendment.

# Potato Marketing in Ontario

L. Bodnar, Economist

Treasury Department, Finance and Economics

# MAIN CHARACTERISTICS OF POTATO GROWING IN ONTARIO

Potato growing in Ontario occupies a relatively minor position in the agriculture of the province although Ontario annually supplies a significant proportion of Canada's total potato production. In 1966, 18.3 per cent of total Canadian potatoes were produced in Ontario, while the Maritime provinces - traditional potato growers — together accounted for 47.9 per cent. In terms of acreage, Ontario had 52,100 acres, or 16.2 per cent of the Canadian total under production in 1966 compared with 38.3 per cent for the three Maritime provinces. However, in terms of total agricultural cash income in Ontario the contribution of potatoes was only 1.9 per cent in 1966. The comparable figure for the Maritimes was 20.6 per cent. In Prince Edward Island potatoes accounted for 32.8 per cent of total agricultural cash income.

# Potato Acreage, Canada and Ontario 1961-1966

Year	Canada <sup>1</sup> Thousands of acres	Ontario Thousands of acres	Ontario Pcr Cent of Canada
1961	305.7	51.5	16.9
1962	288.1	49.9	17.3
1963	285.4	51.0	17.9
1964	281.2	53.0	18.9
1965	298.8	56.0	18.7
1966	319.0	52.1	16.3

<sup>1</sup>Excludes Newfoundland, Yukon and the Northwest Territories.

Source: DBS and Canada Department of Agriculture.

Potato Shipments to Ontario from Other Provinces, 1965 and 1966

	1965		1966	
Shipments From	000's cwt.	Per Cent	000's cwt.	Per (
Prince Edward Island	2,230	65.1	2,022	65.8
New Brunswick	1,118	32.7	980	31.9
Quebec	71	2.1	42	1.4
Manitoba	4	0.1	10	0.3
Alberta	1	1	19	0.6
<b>Total Shipments to Ontario</b>	3,424	100.0	3,073	100.0

<sup>1</sup>Less than 0.05 per cent.

Note: A comparable breakdown by provinces for earlier years is not available. Source: Ontario Food Council.

Despite the fact that Ontario produces a respectable share of Canada's total potato production, the province is not self-sufficient. From 1961 to 1966, 18 to 26 per cent of the total quantity of potatoes used in Ontario came from other provinces, mainly the Maritimes. According to the Ontario Food Council, Prince Edward Island accounted for 65.8 per cent and New Brunswick for 31.9 per cent of total volume of potatoes moved to Ontario's markets from other provinces. Maritime potatoes enter the Ontario market in late October and over the following months gradually occupy a more significant position.

Most potato imports are from the United States and consist of tablestock and processing potatoes. The bulk of imports are early potatoes which enter Ontario before the province's new potatoes are ready for the market in large volume. From 1961 to 1966 imports made up 2.3 to 5.8 per cent of total potatoes used in Ontario. Exports and shipments to other provinces are insignificant. The majority of Ontario potatoes are consumed within the province.

### **Requirements for Production**

The successful production of potatoes requires both special soil and climatic conditions. Potato production is thus concentrated in areas where these favourable conditions prevail. The type of soil in which potatoes are grown may affect dry matter content of tubers because of the water-holding capacity, drainage, aeration, structure, temperature and fertility. Any of these factors could cause differences in the dry weight of potatoes.

The ideal potato soil is a rich, deep, well-drained, medium loam, free from ston moderately acid (pH 4.8 to 6.5) soil containing adequate organic matter. Such a soil warms up quickly in the spring and has a high natural fertility and water-holding capacity, plus good aeration for the development of the tubers.

This does not mean that other soils are not suited for potato production. However, the use of soils which are too coarse or too fine in texture will lead to difficulties in some years. Very coarse soils dry out too much in dry years, delaying germination, reducing

Farm Cash Income, Total and from Potatoes, Canada and Provinces, 1961-1966

	Canada			Ontario			Maritimes		
Year	Total \$'000	Potatoes \$'000	Per Cent of Total	Total \$'000	Potatoes \$'000	Per Cent of Total	Total \$'000	Potatoes \$'000	Per Cent of Total
1961	2,926,061	46,409	1.6	874,110	12,682	1.5	109,035	14,613	13.4
1962	3,172,101	45,932	1.4	924,199	12,520	1.4	111,989	15,599	13.9
1963	3,212,650	49,882	1.6	996,936	13,974	1.4	113,599	19,041	16.8
1964	3,499,373	64,909	1.9	1,020,275	14,875	1.5	125.857	29,542	23.5
1965	3,818,281	104,311	2.7	1,103,964	25,413	2.3	152,513	46,359	30.4
1966	4,273,575	80,501	1.9	1,241,915	23,161	1.9	146,590	30,233	20.

Source: DBS and Canada Department of Agriculture.

Potato Production, Canada and Ontario, 1961 to 1966

100	Canada <sup>1</sup>	Ontario	Ontario
r	000's cwt.	000's cwt.	Percentage of Canada
1961	44,108	9,819	22.3
1962	46,671	9,581	20.5
1963	45,809	9,792	21.4
1964	47,733	10,494	22.0
1965	46,472	10,584	22.8
1966	54,679	10,003	18.3

<sup>1</sup>Excludes Newfoundland, Yukon and the Northwest Territories. Source: DBS and Canada Department of Agriculture.

yield and stunting top growth. Because of this reduced top growth, weeds grow uncontrolled and soil temperatures rise to the point where after-cooking darkening is encouraged and increased respiration in the tubers causes a loss of dry matter. Most Ontario potatoes are grown in relatively coarse textured soils that, when well managed, produce high yields. These soils are also well suited to mechanized potato production.

Fine-textured soils tend to remain cold and wet in the spring, causing seed pieces to in the ground. Compaction later in the season often causes misshapen tubers and difficulties at harvest time.

Present commercial varieties are derived from species originating in the mountainous regions of Chile in South America. The growing season at these high altitudes has moderate temperatures and long days, conditions which are found in the main potatogrowing districts of Southern Ontario.

A mean daily temperature of 65° to 70°F. during July is considered best for highest yields, together with a rainfall of one inch per week throughout the growing season. Lack of adequate moisture in July and early August is usually the most serious factor limiting potato production in Ontario.

Potato yields in Ontario have dramatically expanded during the 1911 to 1965 period. Yields began to rise in the late thirties and have continued to do so at an accelerated pace since 1950. Potato yields in Ontario surpass the Canadian average.

Although three-quarters of Ontario potatoes are sold as table potatoes, the share of atoes used for processing is steadily rising. While Ontario potatoes used for processing accounted for only 8.6 per cent of total potato production in the province in 1960,

the figure for 1966 rose to 17.9 per cent. And the trend is upwards. The chief forms of processed potatoes at present are: potato chips, frozen french fries, dehydrated (flakes, granules) and pre-peeled potatoes.

Potato Yield per Acre, Canada and Ontario, 1961 to 1966

Year	Canada <sup>1</sup>	Ontario
	cwt.	cwt.
1961	144.3	190.7
1962	162.0	192.0
1963	160.5	192.0
1964	169.7	198.0
1965	155.5	189.0
1966	171.4	192.0

<sup>1</sup>Excludes Newfoundland, Yukon and the Northwest Territories.

Source: DBS and Canada Department of Agriculture.

The marketing of potatoes for processing has become very organized because most processors make contracts with growers (before the crop is sown) to buy their entire crop. Thus the grower is assured of a market and the processor of shipments of the quality required. Some processing companies grow a part of their own requirements. Some purchases are also made on the open market.

# MARKETING TABLE POTATOES IN ONTARIO

Experts estimate that 70 to 75 per cent of Ontario-grown potatoes are sold as table potatoes. In the past decade the marketing of table potatoes in Ontario has undergone

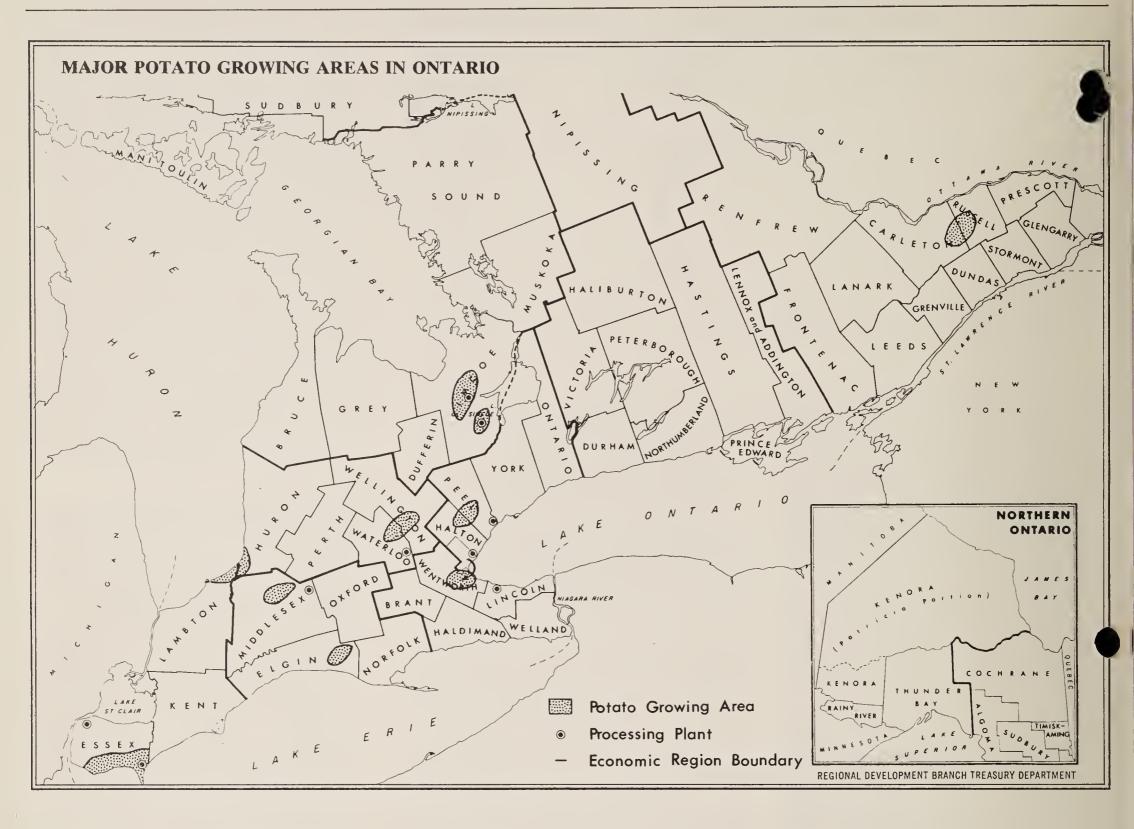
many changes due to the increasing scale of operation (both at farm level and at the retail trade level), the improvement in farming technology and the development of more rapid and efficient transportation and communication services. Other important changes include the growth of supermarkets, which at present cover an estimated 60 to 65 per cent of total table potato sales at retail level, and the development of packing techniques.

An analysis of potato marketing in Ontario indicates that a limited number of grower-packers who sell exclusively to chain stores operate well-mechanized 800-1,000 acre farms. These grower-packers have an assured market for their product. But many other farmers have no connection with corporate chains and have to market their produce through these large grower-packers. This situation leads to varying degrees of dependence upon these large grower-packers and, indirectly, upon chain stores.

### **Marketing Table Potatoes at Farm Level**

The system of marketing table potatoes at the farm level varies considerably, depending upon size of operation, location, personal ability and inclination of the grower.

- (a) A small-scale grower (less than 50 acres) usually has no more than a one-row potato digger. He fills 75 lb. bags on the field and sells directly to the trucker.
- (b) The same type of grower delivers the potatoes in bulk to his farm storage (which is usually a converted barn), provides some grading and sells his produce, as a rule, in 75 lb. bags to the trucker, or local stores.
- (c) In another frequently used method, the grower delivers and sells his produce to a packing station (usually farmer-owned) where the potatoes will be graded and packed in 10, 25 and 50 lb. bags.
- (d) Farmers' markets also have some importance in potato marketing. The largest of these farmers' markets is located at the Ontario Food Terminal and provides parking and selling space for 350 vehicles. Most of the produce sold on the Toronto farmers' market originates within a 50-mile radius of the market, but occasionally growers come from as far as Leamington. In 1963, the estimated 3,280 tons of potatoes sold on the farmers' market of the Ontario Food Terminal represented six to seven per cent of total potatoes grown in the province.



The possibilities in selling potatoes are even more numerous. Larger growers have their own grading stations and sell their produce in 10, 25 and 50 lb. bags to local independent grocers and small chain stores.

One of the largest potato growers in the province, with an area of 700-800 acres, has his own sales organization with a full-time sales manager and storage facilities for 320,000 (75 lb.) bags. This operator washes, packs and sells his own produce directly to chain stores, dealers and institutions.

### **Marketing Co-operatives in Essex County**

In Essex County, especially in the area adjacent to the shore of Lake Erie, the early springs facilitate the production of a variety of early crops. The shipment of early potatoes in the Harrow-Leamington area usually commences in July — several weeks before

Wholesale Prices of Early Potatoes in Leamington Area, June 30 to Sept. 7, 1966

Date	Price Per 25 lb. Bag <sup>1</sup>
1966	\$
June 30	2.50
July 8	2.25
July 15	1.75
Aug. 3	1.75
Aug. 23	1.70
Sept. 7	1.65

<sup>1</sup>Less 10 per cent commission to broker and 35¢/75 lb. bag transportation costs to Toronto. Source: Local growers.

other potato-growing areas in the province. Time is the major factor affecting prices in this period of the year. From June to September 1966 the wholesale prices of early potatoes in the Leamington area varied from \$2.50 to \$1.65 for a 25 lb. bag.

Growers in this area complain that potato growing is seriously hindered by the unorganized character of the market and instability of prices. Supply of produce varies unpredictably from day to day in response to weather conditions. Early potatoes being perishable, an increased supply over a period of a few days quickly translates itself into a downward pressure on prices. As already mentioned, processing potatoes are generally grown under contracts written between growers and processors in advance of planting. Early potatoes, on the other hand, are subject to abrupt changes in price behaviour

Potato Marketing in Ontario

— even within a week — that can result not only from the erratic local supply but from the seasonally oriented demand, and from competition of other potato growing s (especially Port Stanley). In addition there is the large unknown factor of U.S. imports. During 1967 Virginia potatoes were brought on the market a month before the Essex potatoes.

The marketing co-operatives in the area help improve the marketing situation to a certain extent. The potato growers' co-operative in Harrow, for example, acts on behalf of 60 growers who represent the majority of local potato growers.

The services of the major co-operative in Essex County include the grading, packing and merchandising of potatoes. Toronto (60 per cent of total sales), Halifax (20 per cent) and Montreal (15 per cent) constitute the main markets. A small volume of the balance is sold to truckers. In the main season — July to September — the co-operative contacts the major customers daily, obtains information on prices and demand, and advises the growers as to the required volume of shipments to the central warehouse.

In the Leamington area another co-operative operates in a similar way. However, this -operative represents only a minority of the Tocal potato growers. There are 10 private shippers in the area, working independently or on behalf of chain stores and major dealers and storcs. There is keen competition on the local market. Sometimes six of the 10 shippers may contact the same broker or dealer in Toronto and, conversely, several farmers may attempt to sell their produce to the same shipper. This two-way competition generally results in depressed prices. It only requires one local grower, willing to sell at a price lower than all others, to establish a price for the whole local market.

# Marketing Group in Port Stanley Area (Elgin County)

There are approximately 25 potato growers in the area of Port Stanley, Union and Aylmer, growing a total of 1,000 to 1,200 acres of potatoes. The bulk of the area's potatoes is marketed between mid-July and carly August, that is, two to three weeks later than the Essex potatoes, and a few weeks earlier than the remainder of the province. This situation offers a definite advantto the local growers: they sell some 60 cent of their produce on the fresh market, while the balance goes to processing companies.

One of the leading potato growers of the area operates a 300-acre farm and acts as the local potato growers' representative. He sells his own and a great amount of local potatoes to major dealers, and to chain stores through brokers.

### **Packing Houses**

An estimated 50 to 55 per cent of the total volume of Ontario-grown table potatoes is sold to packing houses also known as grading stations. Two-thirds of this volume is handled by five or six major operators with a plant capacity of 5,000-10,000 (75 lb.) bags each per week.

Most packing houses (small and large) are owned by individual potato growers who utilize them for their own produce, and also for handling potatoes purchased from other growers.

The services of the packing houses include grading (under the supervision of a government inspector), packing in 10, 25, 50 and 75 lb. bags, and selling. Generally, the major packing houses serve regular customers. Volumes required by buyers are conveyed weekly, whereas prices fluctuate on a day-to-day basis. The customers of the packing houses are brokers, dealers, institutions and — probably most important — the chain stores.

One of the major packing houses has one large grading unit, employing 30 workers from August to early November. The company owns and operates a 500-acre potato farm and also has financial control over a neighbouring farm of similar size. These two farms provide about half of the total volume handled and sold by the company, while the balance is purchased from 15 to 18 Ontario growers. The company also sells P.E.I. potatoes during the winter. This packing house supplies directly to chain stores, to a dealer in Northern Ontario and to potato processors on a minor scale. Another major growerpacker sells to two customers only — both corporate chains. The company grows about 1,000 acres of potatoes, operates controlled temperature warehouses, possesses its own shipping fleet of 24 delivery trucks, and purchases, handles and resells Ontario and P.E.I. potatoes. A third large packing company represents a border case between the grower-packer and the vertically integrated operator. It owns and operates a 300-acre farm and produces potatoes on some 100 acres. In addition, the company operates a potato chip plant and acts on behalf of a corporate chain as packer-dealer.

### **Truckers**

The trucker makes his purchases directly from the farmer and usually follows his own schedule. He sells the produce to institutions, restaurants, independent grocery stores, wholesalers and, occasionally, at the farmers' market in Toronto.

### **Primary Wholesalers**

Primary wholesalers are initial recipients of produce in the market. There are only five primary wholesalers in the province specializing in potatoes.<sup>1</sup>

One of the largest independent firms in this category purchases potatoes from truckers at the Ontario Food Terminal or buys them directly from growers, occasionally on a commission basis. In October, the firm begins to sell P.E.I. potatoes at an increasing rate. By November, no Ontario potatoes are sold at all. Each week, the firm serves approximately 300 customers, such as individual grocery stores, secondary wholesalers, hotels and other institutions — and occasionally chain stores.

Another wholesale firm has a Toronto-based head office and 26 branches through-out Ontario. The central office issues daily market bulletins indicating price quotations, but the local branches hold the authority to buy directly from growers and sometimes from dealers. The branches purchase potatoes already graded and packed. In order to work efficiently they prefer to contact rather large-scale growers who are able to deliver at least a truck-load of potatoes. Their customers tend to be individual retailers, institutions and small chain stores.

### **Dealers**

Dealers sell potatoes to retail stores (individual and chain stores). Five of them are located at the Ontario Food Terminal, and a further six in other parts of the province (London, Hamilton, Oshawa, Shelburne). In addition, a large number of local shippers who buy potatoes directly from growers and sell to chain stores, large dealers and truckers, etc., may be classified in this category.

The marketing pattern and size of operation of the potato dealers vary considerably. For example, one dealer at the Ontario Food Terminal usually sells to chain stores and independent retailers, and purchases directly from growers. At present, the company has about 20 grower-contacts in Ontario. These growers are generally small-scale operators with 10 to 20 acres of potatoes.

<sup>1</sup>A great number of small firms purchase most of their produce from primary wholesalers.

Another important dealer, operates on a much larger scale, receiving potatoes in the following areas:

- (a) Leamington (from local shippers);
- (b) Ridgetown (from local dealers);
- (c) Port Stanley (from local growers);
- (d) Burford (directly from farmers);
- (e) Grand Bend (from its own packing house);
- (f) Ancaster (from a local grower with 600 acres of potatoes).

The customers of this dealer comprise chain stores in the London-Kitchener-Brantford area. The company buys huge amounts of potatoes in bulk, which are graded and packed in its own packing houses, located in London and Grand Bend.

### **Brokers**

The five brokers specializing in potatoes have their offices at the Ontario Food Terminal. Brokers arrange transactions, on a commission basis, between buyers located primarily in Toronto, and shippers and growers from various areas, including the Maritimes. Their most important clients are chain stores, which represent 60 to 70 per cent of the total volume of transactions. Brokers normally prefer to deal with shippers and only secondarily with large-scale growers.

Usually produce buyers of the chain stores contact the brokers, indicating the required volume over the next two to three days. Chain stores may or may not specify the purchase price in advance. The next step is for the brokers to contact local shippers and growers, after which they report back to the chain stores, and again to local shippers, growers, etc.

Such an operation requires experience, flexibility and speed on the part of the broker. Sometimes they contact their clients (buyers and sellers) several times, with alternative offers for concluding a deal.

### **Corporate Chains and Voluntary Groups**

In 1966 chain stores accounted for 53.4 per cent of total annual sales of grocery and other food stores in Ontario. At present, the corporate chains and voluntary groups sell an estimated 60 to 65 per cent of the total volume of table potatoes in Ontario. This estimate may vary among experts, but all agree that corporate chains and voluntary groups have an important influence not only over the retail trade but also over the agriculture sector. The impact on the structure

Annual Sales of Grocery and Other Food Stores, Ontario, 1961 to 1966

Year	Chain Stores	S	Independent	1	Total Sales	
	\$ Million	Per Cent	\$ Million	Per Cent	\$ Million	Per C
1961	867	52.9	772	41.1	1,639	100.0
1962	887	52.3	809	47.7	1,696	100.0
1963	947	52.8	848	47.2	1,795	100.0
1964	1,008	53.0	892	47.0	1,900	100.0
1965	1,096	54.3	923	45.7	2,019	100.0
1966	1,146	53.4	1,002	46.6	2,148	100.0

<sup>1</sup>Including voluntary groups (I.G.A., Red & White, etc.) in Ontario. Source: DBS, Retail Trade.

and prospect of potato growing in Ontario is clearly identifiable. For this reason, the purchasing and merchandising patterns of the chain stores and voluntary groups will be analysed in some detail.

Present analysis includes several corporate chain store organizations and one wholesale firm that serves affiliated independent retail outlets. Most of these firms have warehouses in Metropolitan Toronto to serve retail outlets both in the metropolitan area and in other parts of the province.

The purchasing pattern of corporate chains and voluntary groups varies significantly among the individual firms as regards the quantity of produce acquired. The purchasing pattern of individual firms can take any of the following four forms.

(a) The purchasing and merchandising of one of the largest corporate chains is almost completely centralized. The chief produce buyer takes orders from the retail outlets in Toronto and from the remainder of the province two or three times a week. Approximately 90 per cent of the required volume of Ontario potatoes is delivered by a single packing house, and the rest by another large-scale packer. During the winter season, Maritime potatoes are purchased through brokers.

Potatoes are usually delivered to the corporate chain's central warehouse already regraded and packed and are subsequently shipped to retail stores in Toronto and other parts of Ontario. Some local stores are authorized to purchase directly from growers and dealers at a price suggested by head office.

(b) Another corporate chain has several geographic divisions in Ontario. The produce department of the Toronto division acquires about 90 per cent of total requirements (both

Ontario and Maritime potatoes) from a large grower-packer, and another packing firm delivers the balance. The chain's other divisions purchase potatoes from local growers, packer-growers and from local dealers. As a general rule, all the divisions of this chain prefer to contact large-scale growers, packers and dealers.

- (c) A third corporate chain follows a different procedure again. This company has no permanent suppliers. Shifting from one area of the province to another, the produce buyer acquires potatoes on a daily or weekly basis, contacting several brokers, dealers, whole salers and packers. It appears, however, that two major distributors are the most important contacts. The chain operates a warehouse for grading and packing potatoes. Some of the potatoes are shipped directly to retail outlets. Two other chain stores were found to have very similar purchasing and distribution practices.
- (d) Included in this study was a large wholesale firm that serves affiliated retail outlets. Both purchasing and distribution operations of this firm are centralized. Potatoes purchased by the central office are shipped to the central warehouse. After re-grading and packing into 5, 10, 15, 25 and 50 lb. bags, the produce is delivered by trucks owned by the company to the local stores.

This firm acquires Ontario potatoes from:

- (i) Leamington (two or three local shippers working for the company);
- (ii) Port Stanley (through brokers);
- (iii) Alliston-Beeton area (major packing houses);
- (iv) Ancaster (a large-scale grower); and province.
- (v) occasionally from other parts of the province.

In addition, the company operates a packing house not far from Toronto, which buys Ontario potatoes on a small scale.

### ct of Corporate Chain Stores on Farm Prices of Potatoes

The marketing pattern of Ontario potatoes at farm level follows a well-known course. During late June and early July, when growers commence their harvesting of early potatoes, prices reach maximum levels. As the harvest proceeds in Port Stanley, Ancaster and Alliston, supply increases, prices decline and drop to a minimum by late fall. Weather conditions, yields and fluctuations in potato acreage may modify this pattern to a certain extent.

By this time, the bulk of Ontario potatoes is usually sold. The farmers place the unsold potatoes in storage. In October, Maritime potatoes enter the Ontario market and gradually secure a dominant position. Many retailers and consumers prefer Maritime (especially P.E.I.) potatoes to Ontario produce, which reappears in small quantities in January.

There are some 1,400 potato growers in Ontario and several hundred buyers (truckers, wholesalers, dealers, etc.). One would, therepre, expect that the establishment of potato prices represents an exemplary case of the interaction of supply and demand through free competition. This assumption may also

# Farm Prices of Middlesex Potatoes (Ontario No. 1)

	1951-1955	1961-1965
	Average	Average
	\$/cwt.	\$/cwt.
 January	2.37	2.23
February	2.22	2.32
March	2.31	2.23
April	3.07	2.38
May	3.72	2.17
June	3.38	3.00
July	3.21	n.a.
August	2.77	1.97
September	2.23	1.79
October	2.15	1.84
November	2.38	2.01
December	2.35	2.06

urce: Ontario Department of Agriculture and Food.

be supported by the farmers' market proceedings at the Ontario Food Terminal. A varying number of farmers and truckers offer their produce to individual grocers, pedlars and other buyers. Price is therefore established as a result of direct negotiations between buyers and sellers.

The wholesale price of potatoes is fixed at the Ontario Food Market in a similar way. Buyers check and compare the offers of a number of wholesalers and, as a rule, the lowest-priced tentative deal determines the daily wholesale price. Prices quoted at the Ontario Food Terminal significantly influence prices across the province. In Leamington and other areas local shippers, dealers, packers and large-scale growers sell potatoes to retailers, institutions and chain stores, directly or through other dealers and brokers. As has been demonstrated already, many of these intermediaries work directly or via other agents on behalf of the corporate chains, following the purchasing and pricing policies of the latter. Other intermediaries, who sell to independent grocers, institutions, etc., have to adapt themselves to the price leadership of the major buyers in order to keep themselves and their clients competitive.

From the point of view of most growers and small retail outlets the marketing pattern of potatoes appears unorganized, inefficient, overlapping and sometimes even chaotic. Individually, they are not in a position to play a part in the determination of prices. Although the corporate chains also have to take into consideration the general supply-demand situation, weather conditions, etc., the prevailing high level of concentration enables them to influence prices through a selective purchasing policy. (We have already mentioned that corporate chains handle 60 to 65 per cent of total potato sales in Ontario.) The chain stores will not buy at a price higher than what they consider acceptable and they are in a position to influence prices because of the volumes they purchase. Another prominent element in the pricing process is the system of 'special or feature' sales, through which potatoes purchased at depressed prices are marketed. Independent stores must follow these established prices in order to remain in business.

Each day the produce manager of a corporate chain calls the Ontario Food Terminal, the wholesalers and brokers to obtain information on prices. He gathers information on the volume of potatoes available

at the various large packing houses and notes the retail prices of other corporate chains and their specials. The manager calculates the exact amount of potatoes required by the retail outlets of his company. After considering all these factors, he decides whom to contact and at what price level to purchase. The corporate chain is infinitely better informed than a grower with, for example, 50 acres of potatoes, and is evidently in a much more flexible position; it has multiple choices, and fully comprehends that the huge volume of potatoes required by its organization is much too important to be neglected, even if the purchase price offered is lower than the wholesale price at the Ontario Food Terminal. Corporate chains, as a rule, offer lower than the wholesale price but they never go higher. In this rather indirect fashion, Toronto wholesale prices have some influence on pricing policies practised by corporate chains.

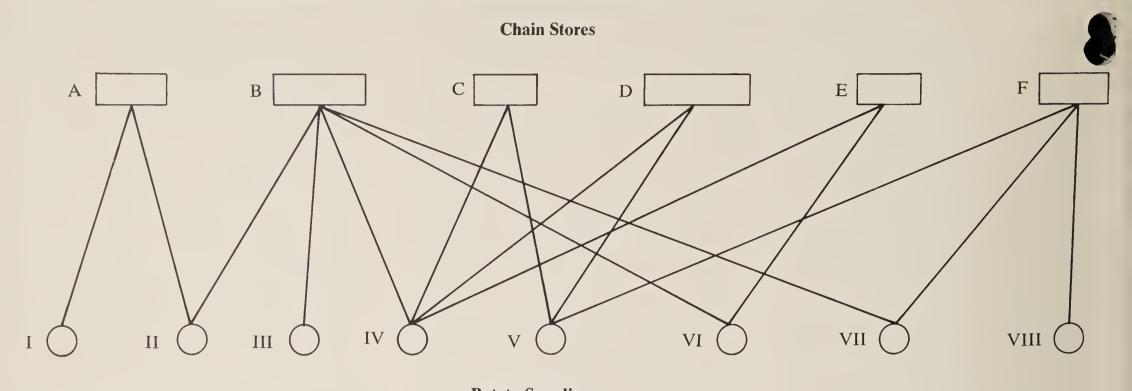
As previously shown, some corporate chains acquire their potatoes almost exclusively from one major packer-grower. The produce buyer gathers his information on the overall situation and purchase prices are established accordingly. However, in this particular case, the exclusive packer-grower is in a position to shift the effects of low prices on to his grower-suppliers.

The present state of affairs, involving only a few buyers who control a large proportion of the market, is known as oligopsony. This results in price leadership from the buyers' side. These large buyers decide upon the prices they are willing to pay and other buyers conform. Potato growers are economically divided: most of them are weak; they sell perishable products and, therefore, their bargaining position is unfavourable. Consequently, potato marketing, which appeared on the surface to represent an exemplary case of free competition (a great number of buyers and sellers) is, in fact, dominated by a few large and powerful corporations.

# **Effect of Market Structure on the Potato Growing Industry**

The detailed analysis of potato marketing has already indicated that a limited number of large grower-packers, who sell exclusively to chain stores, operate 800-1,000 acre potato farms. These farms are well mechanized and apply modern production methods. These large grower-packers have secured a market for their produce and are also relatively well

### MAJOR CORPORATE CHAIN STORES AND THEIR MAIN POTATO SUPPLIERS



Potato Suppliers

I = Manufacturer & Packer

II = Grower (1,000 acres) & Packer

III = Packer

IV = Dealer

V = Grower (1,000 acres) & Packer

VI = Grower & Packer

VII = Grower (600 acres)

VIII = Grower (800 acres)

protected against the adverse consequences of price fluctuations. They profit as farmers from high potato prices, and when potato prices are low at farm level, they can still obtain some gains as packers of their own and purchased potatoes. Many other farmers have no access to, or connection with, corporate chains. These farmers have to market their produce through these large grower-packers. This situation eventually leads to varying degrees of dependence upon these large grower-packers and, indirectly, upon the chain stores.

Some large, independent growers, with several hundred acres of potatoes, sell high quality, well-graded potatoes directly to wholesalers, institutions and occasionally to chain stores. These growers have invested heavily in machinery, equipment and storage facilities, and are very sensitive to the uncertainties of the market. This group of large-scale independent growers favours collective action: the establishment of a potato marketing board for regulating prices and perhaps even the volume of production.

Another category of grower consists of those who produce both table and processing potatoes. These growers operate well mechanized, relatively large farms of 100 or more acres of potatoes. Partial protection against price fluctuations of table potatoes is provided by processing contracts.<sup>2</sup>

Smaller potato growers (with less than 100 acres of potatoes) usually tend to be mixed farmers. In general, their potato acreage is too small to allow the economical use of special equipment and modern storage facilities. In the field of marketing, small potato growers are mostly uninformed, unorganized and divided. Many of these growers sell produce which does not meet established grading and quality requirements. Sales are made as quickly as possible, occasionally even straight from the fields. Because of the pressure for ready cash, they are sometimes willing to undersell other growers in the area.

Quality Problems of Ontario Table Potatoes On the Toronto wholesale market during the 1961 to 1965 period, Prince Edward Island potatoes obtained an average of 42.6 per cent, and New Brunswick potatoes an average of 30.2 per cent price premium over Ontario produced potatoes. Buyers at all levels show a definite preference for Maritime potatoes.<sup>3</sup>

The Ontario Division of the Consumers' Association of Canada surveyed the opinions of some 100 Toronto housewives concerning Ontario potatoes. In general, the comments centred around the following issues: poor cooking quality of Ontario potatoes, inadequate grading, mechanical injuries and other damages.

Potato experts and the general public express a preference for Maritime potatoes for the following reasons:

Potatoes from New Brunswick, P.E.I. and other provinces are more uniform, since all shipments from one province to another require official quality inspection. Intra-provincial potato shipments do not require the type of inspection. Ontario has only threclosed areas: Leamington, Niagara and Bradford. Potatoes grown within these areas must

<sup>2</sup>The number of large-scale potato growers (100 + acres) is estimated at 80-90 in Ontario (seven per cent of total potato growers) with a total potato area of approximately 20,000 acres: i.e., 35 per cent of total potato acreage in the province.

<sup>3</sup>Canada, Department of Agriculture, Crop and Seasonal Price Summaries. Potato Marketing in Ontario

Seasonal Average Wholesale Prices, Toronto Market, 1951-52 to 1965-661

Sasonal Average	Ontario	P.E.I.	N.B.	Premium of P.E.I. Over Ontario	Premium of N.B. Over Ontario	Per Cent of P.E.I. Over Ontario	Per Cent of N.B. Over Ontario
	\$/cwt	\$/cwt	\$/cwt			%	%
1951-52	4.61	5.64	5.24	1.03	0.63	22.3	13.7
1952-53	2.88	3.29	3.41	0.41	0.53	14.2	18.4
1953-54	1.52	1.79	1.68	0.27	0.16	17.8	10.5
1954-55	2.90	3.71	3.41	0.81	0.51	27.9	17.6
1955-56	1.86	3.31	2.65	1.45	0.79	78.0	42.5
1956-57	2.25	2.89	2.55	0.64	0.30	28.4	13.3
1957-58	1.87	2.61	2.54	0.74	0.67	39.6	35.8
1958-59	1.77	2.70	2.43	0.93	0.66	52.5	37.3
1959-60	$2.28^{2}$	4.18	3.77	1.90	1.49	83.3	65.4
1960-61	$2.23^{2}$	2.94	2.73	0.71	0.50	31.8	22.4
1961-62	1.62	2.34	$1.92^{3}$	0.72	0.30	44.4	18.5
1962-63	$2.17^{2}$	2.95	2.56	0.78	0.39	35.9	18.0
1963-64	2.04	3.11	2.84	1.07	0.80	52.5	39.2
1964-65	2.44	4.87	$4.58^{3}$	2.43	2.14	99.6	87.7
1965-66	2.76	3.93	$3.60^{3}$	1.17	0.84	42.4	30.4
Average	2.35	3.35	3.06	1.00	0.71	42.6	30.2

<sup>1</sup>Ontario, Prince Edward Island and New Brunswick number one potatoes.

purce: Canada, Department of Agriculture, "Fresh and Processed Fruits

hd Vegetables," Crop and Seasonal Price Summaries,

Vol. 5 - 1951-52, Part II,

Vol. 10 - 1956-57, Part II,

Vol. 14 – 1960-61, Part II,

Vol. 19 – 1965-66, Part II.

proceed to designated inspection points for examination before leaving the district.

Some growers pay little attention to quality considerations; over-fertilization is still frequent and results in higher yield but poor quality; use of potato harvesters is not too careful, and consequently leads to mechanical injuries; grading and handling of potatoes are also inadequate in many cases.

Holland Marsh potatoes, in general, are unattractive, green easily, and are poor in cooking quality. Likewise, when Ontario's new potatoes are harvested in July and August, they are usually badly skinned, discoloured, wet and soggy by the time they reach the consumer. The chief produce buyer of a major chain store offered the following explanation of consumers' perference for Maritime potatoes: "the image of Ontario tatoes has improved to some extent, but she old and outdated story is repeated so often by so many people that a negative situation continues to exist."

The last three or four years, however, have witnessed some improvements in quality. Large-scale growers who have invested heavily in potato farming have become interested in supplying good quality and well-graded potatoes to their customers, in order to obtain higher prices and better consumer acceptance.

Chain stores, through their selective purchasing policies of accepting only the highest grades, have also made a positive contribution to the improvement of the quality and grading of Ontario potatoes. Grower-packers, dealers and brokers now know buying habits and thus cater to their desires. Those suppliers who have established a reasonably good reputation are usually able to maintain continuing business with chain stores. A certain quantity of potatoes, however, is still purchased directly from producers by truckers, and sold to customers without official inspection. Potatoes sold on the market without some form of inspection are the ones which

discredit Ontario potatoes in the eyes of the public.

### **Summary and Recent Developments**

Potato growers in both Canada and Ontario have experienced continuing and extreme price fluctuations. These extreme and irregular price changes create uncertainty in the minds of the producer with respect to planning the following year's production. The previous year's prices provide little or no guidance to him. He must guess the most probable prices for planning purposes, and these estimated prices may not reflect the future market situation.

Assessing the probable causes of the experienced changes in price, it was found that there were large annual shifts in the quantity of potato supplies. The fluctuations in potato quantities have been determined by two factors:

- (a) relatively large and mostly unpredictable fluctuations in potato yields per acre;
- (b) year to year changes in potato acreage.

The system of potato marketing has influenced both potato prices and the structure of the potato growing industry. At present, Ontario potatoes are sold through two major marketing channels: fresh market for table potatoes and contract growing for processing potatoes.

Contract growing of processing potatoes is advantageous to both processors and growers but the situation prevailing in the fresh potato market is not very helpful to potato growers. In addition to the problems caused by the uncertainty of fluctuations in potato quantity, most growers have to sell on a market dominated by corporate chain stores. These chain stores are sufficiently powerful to influence prices and negotiate transactions at price levels frequently considered too low by growers.

The corporate chains handle huge amounts of potatoes, a significant proportion of which are purchased from a limited number of large grower-packers and dealers. Smaller growers, who have no direct access to the chain stores, depend to varying degrees upon the purchases of large grower-packers and dealers, and ultimately upon the corporate chains. The nature of the market structure further adds to the gravity of the problems of the majority of potato growers who are already seriously affected by the irregular fluctuations in potato supply.

<sup>&</sup>lt;sup>2</sup>Few quotations only.

<sup>350</sup> lb. bags converted to cwt.

### **Potato Marketing Board**

Many potato growers in Ontario are convinced that the establishment of a Marketing Board may solve some of their marketing problems. They expect that such a measure would (a) neutralize the consequences of the irregular and unpredictable fluctuations in potato supply; and (b) counteract the economic power of large corporations.

The desired scope of the proposed Marketing Board is still under discussion. The advocates of the idea tentatively agree that the Board should have two committees: a Special Committee, with participation of growers and processors to deal with prices, quality requirements, transportation and terms of payment of processing potatoes; and another committee to deal with table potatoes. The committee for table potatoes would meet at least once a week to establish prices and consider quality and the supply situation. Quality requirements would be strictly enforced and supervision would be obligatory.

At present the bulk of Ontario potatoes is sold by early November. Accordingly, the marketing committee would not control

potato prices during the winter. Potatoes unsold by that time would not be subject to price control, and would be disposed of at the discretion of the individual grower.

The Marketing Board would not introduce a quota system in order to regulate acreage and/or quantity; there would be no provision for an organized potato diversion program to dispose of surplus potatoes. The Board would not assume the role of a marketing agency either; growers would contact purchasers directly.

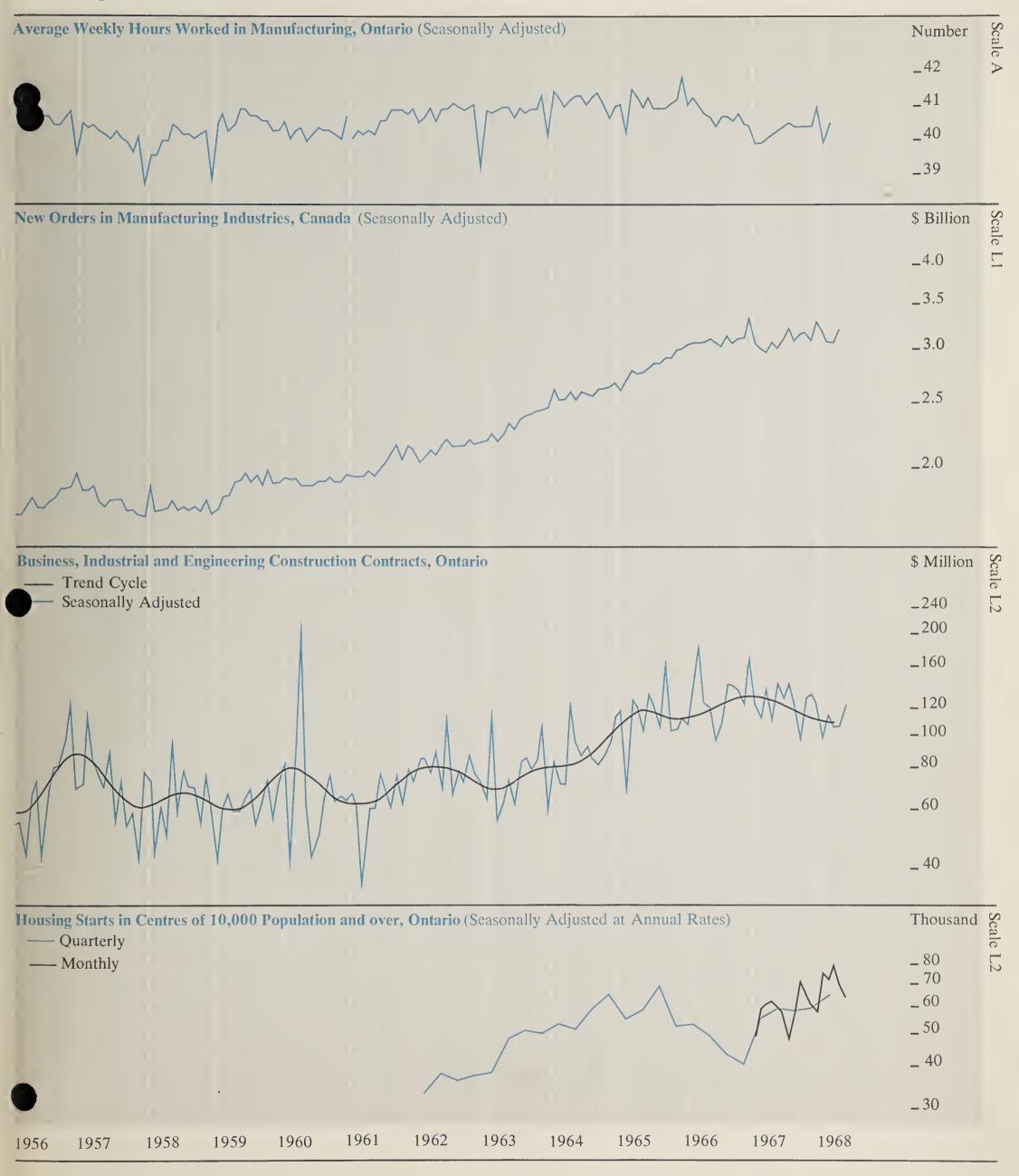
The advocates of a Marketing Board expect that negotiated prices, if enforced, would reduce insecurity in production, foster orderly marketing, and counteract to a certain extent the oligopsonistic power of corporate chain stores. The assumption is that controlled prices established between July and November will be high enough to compensate growers for their low potato prices during the winter.

However, as experience has shown, erratic fluctuations in the quantity of potato supplies due to fluctuations in yields and planted acreage cannot be eliminated. A situation may arise in which large quantities of unsold potatoes could exert such a pressure that prices established by the Marketing Board could not be maintained, and the whomarketing system might collapse. Therefit is possible that a Marketing Board, if established, might consider measures to consolidate and further improve the economic situation of the growers. Such measures might include the staged introduction of acreage and quantity control and a potato surplus disposal program on a continuing basis.

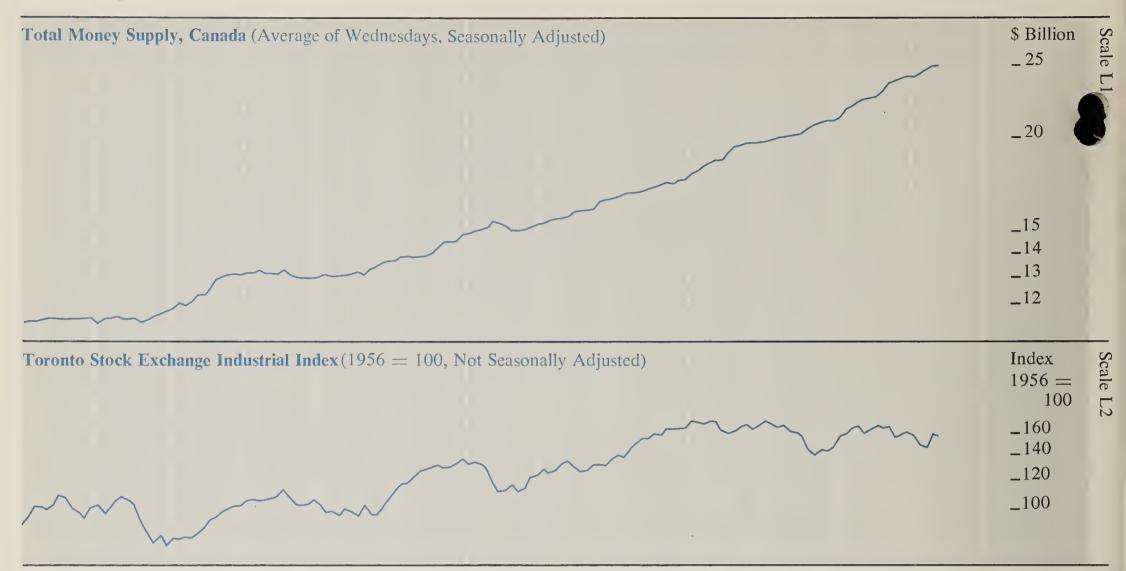
Although potato growing in Ontario occupies a relatively minor position in the agriculture of the province the problems of potato growers are significant on their own merit since some 1,400 growers and countless consumers are involved. Growers seek to obtain a fair market return for their produce. Consumers desire a continuing supply of high quality potatoes at a reasonable price. By analysing the present market structure of the industry and identifying some of its major characteristics, this study has endeavoured to throw some light on possible solutions.

# Selected Economic Indicators

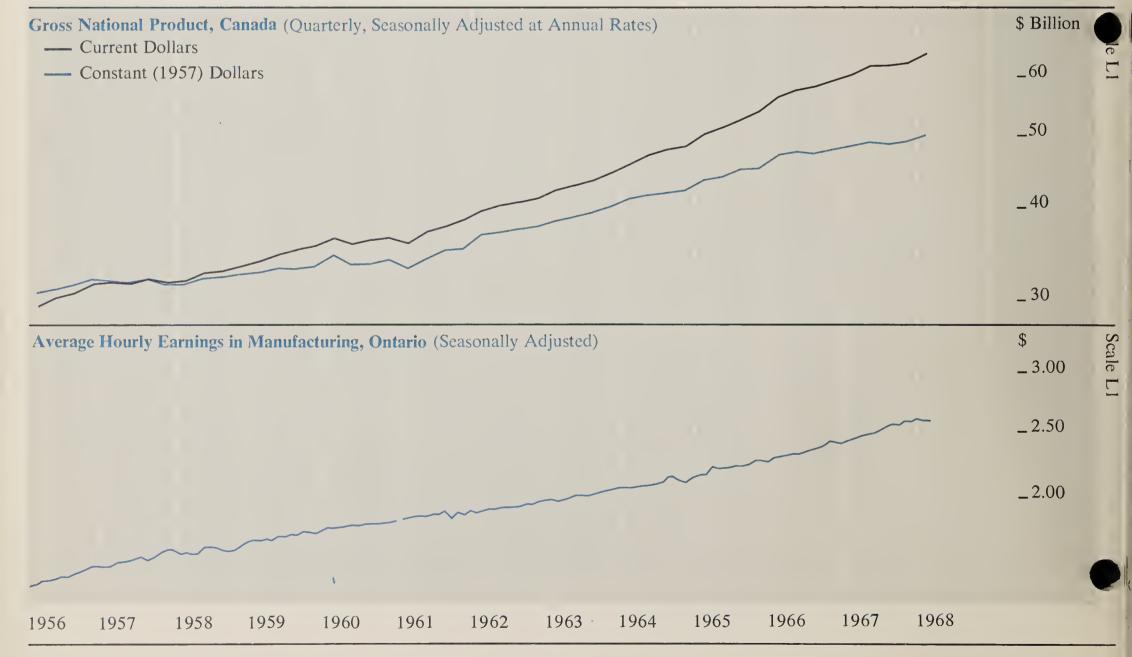
**Leading Indicators** 



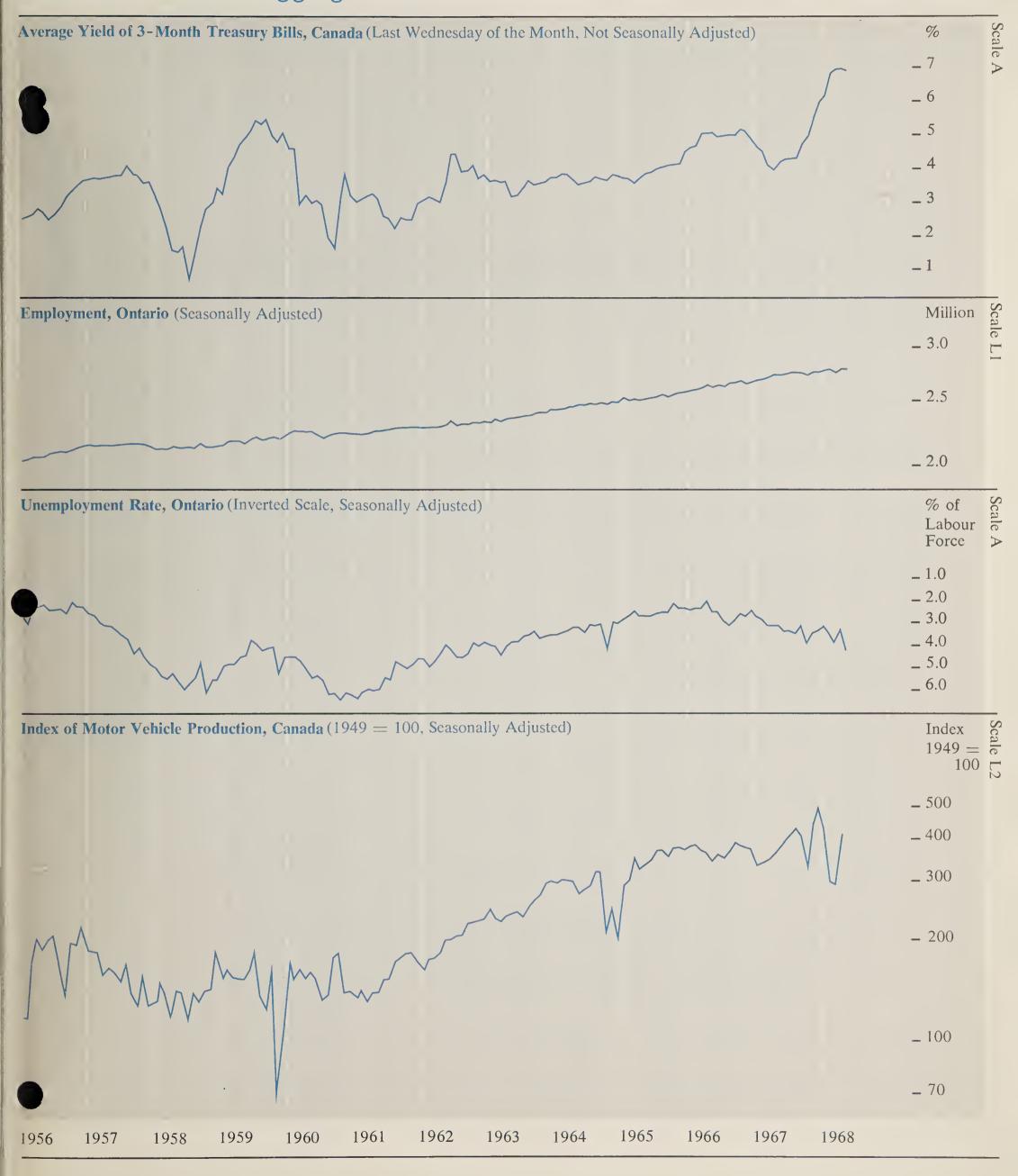
### **Leading Indicators**



### Coincidental and Lagging Indicators



# Coincidental and Lagging Indicators



# Economic Indicators

Seasonally Adjusted

		1967									1968				
		April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May
Leading Indicators  Average Weekly Hours Worked in															
Manufacturing	Number	40.2	40.3	40.4	40.5	40.4	40.4	40.4	40.4	40.9	39.9	40.5	<b>,</b>	,	
New Orders in Manufacturing Industries <sup>c</sup>	\$ Million	3,094	3,024	3,117	3,242	3,107	3,161	3,178	3,118	3,308	3,215	3,079	3,078	3,209	
Business, Industrial and Engineering  Construction Contracts	\$ Million	112.9	143.5	129.0	129.3	121.6	99.2	129.7	133.0	125.4	99.3	114.5	105.1	105.4	122.6
Urban Housing Starts	Number	62,700	60,100	57,800						58,700	76,600	72,700	79,400		63,200
Money Supply	\$ Million	22,307	22,522	22,614							24,149				24,987
T.S.E. Industrial Index <sup>u</sup>	1956 = 100	168.28	161.44	164.54			168.72				157.43				157.87
Business Failures <sup>u</sup>	Number	73	40	59	52			79	43	73	54	59	87	52	
Business Failures – Liabilities <sup>u</sup>	\$ Million	2.6	ယ	2.9	3.2	4.1	2.6	16.6	2.9	24.3	2.6	1.8	5.6	6.4	
Coincidental and Lagging Indicators Gross National Product <sup>c</sup> (Annual Rate)	\$ Million			62,072			62,372			62,992			64,828		
Average Hourly Earnings in Manufacturing	\$	2.47	2.49	2.51	2.55	2.56	2.56	2.58	2.58	2.60	2.59	2.58			
3-Month Treasury Bill Ratec,u	%	4.00	4.24	4.28	4.32	4.34	4.76	4.95	5.46	5.95	6.29	6.80	6.98	6.99	6.95
Cheques Cashed in Clearing Centres <sup>1</sup>	\$ Million	5,088	4,964	5,154	5,121	4,983	5,133	5,081	5.459	5,485	5,006	4,959	5,313		
Tahour Force	000%	2.830	2.835	2 844	2 862	2.860	2.851	2853	2 860	2 8 5 6	2 857	2 892	2 869	2 890	2.918
Employed	000's	2,742	2,748	2,750	2,767	2,763	2,762	2,746	2,764	2,762	2,769	2,793	2,760	2,796	2,796
Unemployed	000's	88	87	94	95	97	89	107	96	94	88	99	109	94	122
Unemployed as % of Labour Force	%	3.1	3.1	3.3	3.3	3.4	3.1	3.8	3.4	3.3		3.4	3.8	3.3	4.2
Wages and Salaries	\$ Million	1,045	1.051	1,053	1,064	1,071	1,075	1,070	1,086		•	1,099.5			
Index of Industrial Employment	1961 = 100	125.3	124.7	124.4	124.9	124.6	124.6	124.4	125.7	125.8	126.1	124.3			
Index of Industrial Production <sup>c</sup>	1949 = 100	280.7	280.0	280.8	283.6	284.6	284.3	282.4	289.4	291.0	288.2	285.1	285.3	291.5	
Total Manufacturing <sup>c</sup>		249.7	246.9	247.3	249.0	250.9	251.7	247.5	256.3	257.1	253.1	248.4	249.1	257.0	
Durables <sup>c</sup>		255.7	251.8	249.9	255.2	257.7	258.3	249.0	264.8	268.9	260.2	246.6	243.5	259.0	
Miningc		411.4	415.4	424.2	428.4	426.2	421.9	431.2	425.7	440.7	422.8	435.3	439.6	434.3	
Electric Power and Gas Utilities <sup>c</sup>		539.1	563.2	555.1	572.9	565.5	555.8	568.0	571.7	572.9	605.9	596.9	583.0	582.1	
Primary Energy Demand (Annual Rate)	BKWH	50.59	51.86	50.15	51.03	51.80	51.27	52.40	53.80	52.99	55.51			54.00	53.81
Exports (including re-exports) <sup>c</sup>	\$ Million	971.0	951.3	962.6	914.5	925.2	861.3	956.7	969.4 1		1,077.7	1,140.4	1,125.7	1,166.7	
ATTECON	÷ 172.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22.20.22		) 	(			i i	()		1					
Unclassified Indicators	TI C & Million	2 100	2 105	2 160	2 102	2 108	2 221	202	777	2260	0 175	2 400	) ) //	2 416	2 605
Industrial Materials Price Indexe,u	1935-39 — 100	252 5	2546	256.7	253 0	2520	251 2	250.1	252 9	2,200	253 8	2,430	253 0	251 2	253 9
Consumer Price Indexc,u	1949 = 100	147.8	148.1	148.8	150.2	150.9	150.7	150.5	151.0	151.8	152.6	152.7	153.2	154.1	154.2
	1														





# REFERENCE COPY





# Ontario Economic Review

WEFERENCE CONT

July/Aug 1968 Volume 6, Number 4

**Department of Treasury and Economics** 

Hon. Charles S. McNaughton, Treasurer of Ontario and Minister of Economics
H. Ian Macdonald, Deputy Minister





# Ontario Economic Review

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# The Ontario Economy

# 8

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Department of Treasury and Economics

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A publication of the Department of Treasury and Economics Government of Ontario

Hon. Charles S. MacNaughton
Treasurer of Ontario and
Minister of Economics
H. Ian Macdonald
Deputy Minister

The Ontario Economic Review is prepared and edited bimonthly in the Economic Analysis Branch of the Economic and Statistical Services Division, Department of Treasury and Economics. The review presents articles of interest as well as current information on economic activity in Ontario. Signed articles reflect the opinions of their authors and do not necessarily represent the views of the Department.

Subscriptions can be obtained free of charge by writing the Editor, *Ontario Economic Review*, Department of Treasury and Economics, Frost Building, Queen's Park, Toronto 5, Ontario.

### **About the Review**

The feature article for the July-August edition of the *Ontario Economic Review* is based on Budget Paper B, The Budgetary Framework, contained in the 1968 Annual Budget Statement of the Hon. Charles MacNaughton, Treasurer of Ontario. The article contains an analysis of the framework within which the annual budget is developed, and deals mainly with the growth of its overall financial capacity and the structure of its commitments to existing programs and other agencies.

While the federal government has principal access to the growth-fields of taxation — the personal income tax and the corporation income tax — the tax fields at present available to the provinces — the retail sales tax and the various consumer taxes — have little or no growth potential. Therefore a solution to the problem of the growing burden on the municipal taxpayer will come only with greater access to the progressive tax fields. This goal will be achieved only as a result of total tax-sharing reform among all three levels of government.

The article was prepared under the direction of Dr. T. M. Russell in the Taxation and Fiscal Policy Branch, Policy Planning Division of the Department of Treasury and Economics.

### **Indicator Charts, Pages 12-14**

Fluctuations in aggregate economic activity – commonly used to define business cycles – do not necessarily correspond with fluctuations in the individual activities which make up the aggregate. Instead different indicators of economic activity may vary with respect to both their rates of growth and the timing of their peaks and troughs: some may grow more rapidly than others, some change direction sooner.

Those activities which tend to assume a direction in advance of the aggregate — because they relate to future rather than present production — are referred to as leading indicators, and are widely used to anticipate the short-run future course of the overall economy. The charts on pages 12-14 in the *Ontario Economic Review* present a number of these leading indicators, as well as several which are coincidental to or lag behind the aggregate, to provide for the reader an opportunity to make such an evaluation.

While comparisons of the timing and direction of general changes in the various indicators can readily be made, great care must be exercised in making such a comparison of the amplitude of fluctuations. Of the three vertical scales used – 'A' (arithmetic) and 'L1' and 'L2' (logarithmic scales with one and two cycles respectively over a given vertical distance) – only the logarithmic scales can be used to compare relative changes in different indicators. And this applies only when all series being compared are on the same logarithmic scale. In such a situation all parallel lines represent equal rates of growth, the exact rate of growth being determined by the slope of the line.

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# The Ontario Economy

### Financial Conditions in the First Half

International Developments

The new year ushered in a period of difficulty he Canadian dollar in international m markets. The crisis was triggered primarily by the announcement of U.S. Government measures designed to improve the U.S. balance of payments deficit and stem the outflow of gold. Implementation of the program would reduce U.S. investment in Canada by curtailing capital inflows and by requiring Canadian subsidiaries of U.S. corporations to repatriate a greater amount of current earnings to their parent corporations. The significance of the latter requirement for Canadian economic growth and its exchange reserve position can be gauged by the fact that reinvested earnings by Canadian subsidiaries have constituted about 50 per cent of U.S. direct investment in Canada since 1943. The potentially detrimental effect on the Canadian foreign exchange reserves is emphasized by the fact that U.S. direct investment in Canada has been a critical element in offsetting Canada's persistent balance of payments deficit with the United States.

The potential instability inherent in these developments induced a sharp sell-off of adian dollars in money markets. The canadian government responded by buying Canadian dollars in the market and by instituting measures to bolster reserves. These measures included recall and standby arrangements for \$426 million in U.S. dollars and gold held at the International Monetary Fund and the activating of "swap" arrangements between the Bank of Canada and the U.S. Federal Reserve Board which realized a further \$250 million in U.S. funds. In addition, the bank rate in Canada was increased from 6 to 7 per cent on January 22nd.

These measures, together with a clarification from the U.S. Administration that its balance-of-payments program was not intended to disrupt present money flows between Canada and the United States, reduced speculative pressure on the Canadian dollar. In return, Canadian authorities gave assurances that they would take steps to ensure that the U.S. guidelines would not be short-circuited by U.S. dollar leakages through Canadian intermediaries to third countries.

During January, the spot rate on the madian dollar declined to 91.955 cents in a of U.S. funds. This was dangerously close to the lower level of 91.58 cents permitted under the exchange rate agreement

with the International Monetary Fund. By the end of the month, the value of the Canadian dollar had stabilized at about 92 cents in terms of U.S. funds. It is estimated that about \$350 million in U.S. funds were withdrawn from exchange reserves to defend the Canadian dollar. The official reserves including funds from "swapping" and standby arrangements with the IMF declined from \$2,267 million at the end of December 1967 to \$2,169.3 as of January 31st, 1968 for a net decline of \$97.7 million.

During February and March uncertainty in international monetary conditions served to maintain pressure on the Canadian dollar. Underlying these difficulties was the continued outflow of gold from the United States and fears that the U.S. dollar would have to be devalued. The resulting run on gold forced a temporary suspension on trading in gold by the major gold-holding nations (with the exception of France).

The price of gold on the open market was bid up to approximately \$44 (U.S.) per ounce while the "official" price remained at \$35 (U.S.) per ounce. On March 15 the Bank of Canada raised the bank rate from 7 to  $7\frac{1}{2}$  per cent. In addition, Canadian financial intermediaries and corporations were requested by the Minister of Finance (Mitchell Sharp) to curtail their "swap" deposit activities. These transactions involve the depositing of funds with chartered banks for conversion to foreign currency (usually U.S. dollars) in the form of short-term securities. The bank agrees at the time of deposit to reconvert these funds to Canadian dollars at a specified date and price.

The Minister of Finance explained to Parliament on March 18 that the higher 7½ per cent bank rate became necessary because of the increase from 4.5 to 5 per cent of the federal reserve bank discount rate in the United States. He stated at the time that "Canada's action is evidence that Canada intends to maintain the value of the Canadian dollar . . . The purpose is to continue to attract capital into Canada in order to maintain the stability of the Canadian dollar and the Canadian economy."

During the week-end March 15-17, an apparently temporary solution to the international liquidity crisis was formulated when the major gold-holding nations agreed on a two-price system for gold. Under this arrangement, central banks will buy and sell gold at the official price of \$35 (U.S.) an ounce, while the price on the open market

would be free to fluctuate. To date, the system appears to have functioned effectively. At this time, South Africa's policy with regard to marketing new gold is uncertain, but it seems likely that agreement will be reached for orderly marketing which will satisfy both the free and monetary sides of the two-tier market. This possibility is underlined by the fact that there has been a steady decline in the price of gold on the free market and that further supplies exclusively to this market would tend to move open-market prices closer to the official price of \$35 (U.S.) an ounce.

As a result of these adjustments to the international monetary structure, a degree of stability has returned to international monetary markets. The Canadian dollar has shown increasing strength since the crisis in January and during May and June has been valued consistently at about 93 cents in terms of the U.S. dollar, Present signs are that it will push toward the 93.42 cent upper level in terms of the pegged rate.

During the crisis period, the openness of the Canadian economy has been emphasized by efforts to maintain the external value of the Canadian dollar in the face of domestic economic requirements. Although inflationary tendencies in the Canadian economy have aroused concern in recent months, it is doubtful whether a bank rate of  $7\frac{1}{2}$  per cent would have been contemplated if the Canadian economy enjoyed some degree of international economic isolation. Initially, the increase from 6 to 7 per cent was interpreted as a temporary measure to stem the run on the Canadian dollar. The even higher rate of 7½ per cent is a classic example of the economic policy conflicts which can develop between external considerations and the needs of domestic economic policy. The improvement in international monetary conditions apparently provided the opportunity for reducing the bank rate to 7 per cent following the federal election of June 25.

### The Domestic Capital Market

To a great degree, the domestic capital market has been influenced by international developments. Owing to the relatively high central bank rates of 7 and 7½ per cent between January and June, interest rates throughout the economy experienced an upward adjustment. The rate on 91-day Treasury Bills increased from 5.95 per cent in December to an all-time high of 7 per cent on May 2. The price of longer-term secu-

The Ontario Economy

rities declined significantly. The bell-wether Canada 4½ per cent bonds of 1983 registered their lowest prices on record at about 78 dollars in February and March. By June, both short and longer-term securities reflected easier monetary conditions. On June 28, the average rate on 91-day Treasury Bills declined to 6.56 per cent and the Canada 4½ per cent bonds of 1983 traded at between \$79.50 and \$80.

The day-to-day loan rate recorded an average closing rate of between 5 and 5.60 per cent in the first three weeks of January. Following increases in the bank rate, a general tightening of bank reserves forced this rate to 7.0 per cent by the middle of April. Thereafter, a return to a more liquid position by the chartered banks was reflected in a steady decline in the day money rate. By the end of June the average closing was about 5 per cent.

It was estimated early in the year that the Government of Canada would need to find about \$500 million in new cash before the end of the fiscal year on March 31. Between January and March federal government deposits with the chartered banks increased by about \$387 million. This increase came about primarily through government purchases of Canadian dollars during the foreign exchange crisis. It was anticipated therefore that Ottawa's undertaking to restrain its need for borrowing in the 1968-69 fiscal year would be realized, thus eliminating some of the strains on the capital market experienced in 1967. The need to purchase U.S. dollars to replenish reserves as the Canadian dollar strengthened, and the high rate of "cash-in" of Canada Savings bonds served to keep the federal government active in the capital market. By the end of May, the current value of outstanding Canada Savings Bonds had declined \$569 million from the level reached in last November's sales. The federal government's bank balances which stood at \$258 million were \$556 million below the level recorded at the same time last year. As a result, Government of Canada direct and guaranteed borrowings (carrying terms of over two years) amounted to \$1,577 million between January 1 and June 30. This represents a 133 per cent increase from the \$675 million issued in the same period in 1967. A further \$135 million was raised in bonds having maturity dates of less than two years. In addition, a special treasury bill offering of \$150 million supplemented the normal weekly offering of these securities. New bond

financing as a whole rose 20.1 per cent in the six-month period with provincial and municipal issues down substantially from the same period in 1967. This was presumably a reaction to the relatively high rates of interest prevailing in the period. Corporate issues on the other hand showed a slight increase from \$567.5 million to \$611.3 million in the same period. The federal government in pursuing open-market operations and in replenishing cash balances has, therefore, continued to maintain a high level of occupancy in the capital market.

Both the Canadian and American stock exchanges reacted to the foreign exchange crisis with major sell-offs in February and March. The Toronto Stock Exchange Industrial Index recorded an average closing level of between 160 and 164 in January. By March 21 the closing level had declined to 144.97. There has been a steady improvement since March and the industrial index closed at 166.61 on June 29. In the same period, the Dow-Jones industrial index declined from 899.39 to 825.13 and recovered to 895.28 at the end of the period. Concern is still being expressed at the extent to which Canadian Mutual and Pension Funds are investing in American stocks. There is, however, a tendency to look at the outflow of Canadian funds rather than the net trading position by Canadians in U.S. stocks. The Toronto Stock Exchange Review of May reports that in 1967 \$1.8 billion of common stocks were purchased from U.S. sellers while \$1.6 billion were sold to U.S. purchasers. The net outflow was therefore about \$199 million. It has been argued by the managers of these funds that a primary reason for purchases in the U.S. market is that certain high growth equities particularly in electronics and airlines are not available in Canada and that a sufficient supply of top quality Canadian equities is not always available to them.

The scope and form of the more recent Bank of Canada open market operations reflect a movement toward lower rates of interest in the economy. The ability to sustain a policy of "easier" money will probably require continued fiscal restraint by all levels of government. The recent imposition in the United States of a 10 per cent tax surcharge together with \$6 billion in expenditure cuts will probably be a useful supplement to Canadian policy objectives. The lower interest rates which may now be expected in the United States should give Canadian

monetary authorities some leverage to influence interest rates in Canada in a manner consistent with domestic economic conditions.

### The Consumer Price Index in the First Half

The Canadian Consumer Price Index (based on 1949=100) rose by 0.3 per cent from 154.2 at the beginning of May to 154.7 at the beginning of June. All major components of the general index—food, housing, clothing, transportation and health and personal care—moved higher. Only the group indexes covering recreation and reading materials, and tobacco and alcohol remained unchanged from the previous month.

Although the index was 4.0 per cent above its level of 148.8 recorded in June 1967 there are indications the rate of increase in living costs has been lessening. Earlier this year the annual increases have been consistently higher with the March 1968 index 4.6 per cent above the level recorded twelve months earlier.

The June food price index was 149.4, compared with 148.9 in May and 144.8 in June of last year. The Dominion Bureau of Statistics reports that beef prices, which had been dropping for the past seven months, increased in June, and higher prices prevailed for bacon, ham, chicken and ham. Among staple items, milk and bread prices increased in several cities, whereas butter and eggs declined.

The housing index rose to 157.6 from 157.1, mainly because of higher rents. The largest rent increases were registered in Montreal, Ottawa, Calgary and Halifax. The 0.9 per cent advance in rents reflects the fact that many occupants of rental accomodations sign new leases at this time of year.

DBS reports that other major increases occurred in the prices of men's and children's wear, footwear, piece goods, and clothing services. Higher inter-city train and bus fares for the summer season contributed to the increase in transportation costs while automobile operation costs remained unchanged as higher gasoline prices and service offset a fractional decline in the price of new automobiles.

The increase in the index of health and personal care prices was 0.1 per cent to 197.9 in June from 197.8 in May and 3.8 per cent above its level in June 1967.

There is no index of average family comes comparable to the index of consumer prices, but the DBS industrial composite

index of average weekly wages and salaries (based on 1961=100) rose in April to 139.3 from 137.5 in March and 130.8 in il of 1967. In the twelve months to April year, average weekly wages and salaries rose by more than 6.5 per cent. In the same period, the consumer price index rose to 154.1 from 147.8, an increase of 4.3 per cent. DBS announced earlier that its preliminary estimates for May indicate that average weekly wages in manufacturing rose to \$104.49 from \$104.26 in April, and \$100.63 in March.

The Consumer Price Index, calculated each month by the Dominion Bureau of Statistics, is designed to measure the price level of selected consumer goods. This is achieved by measuring the percentage change over time in the cost of obtaining a fixed "basket" of commodities and services, representing the

purchases made by a cross-section of consumers in a specified time period. At present, the particular population group considered consists of families which in 1957 lived in Canadian cities of over 30,000 population, ranged in size from two adults to two adults and four children and had annual incomes ranging from \$2,500 to \$7,000 during the survey year. The price index covers about 300 different goods and services.

The bureau is at present working on a new consumer price index to be based on 1961. The present index measures changes since 1949 in the current prices of the items included in the basket of goods and services. The relative importance attached to each was determined by the results of a sample survey of family expenditures carried out in 1957. Obviously not everything purchased

by the survey families in the base year can be included in the basket since this would make the problem of collecting prices exceedingly difficult. Therefore the items priced for the index are only a sample, albeit a large one, of the things families buy. They are chosen to be representative of all items and the relative weight given to any item is based not only on the purchase value but also on the value for similar or related goods and services which are not included in the basket.

Costs of shelter and household operation make up the housing index, which accounts for 32 per cent of the total index. Food prices account for 28 per cent, clothing for 11, transportation for 12, health and personal care for seven, recreation and reading for five, and tobacco and alcohol for six per cent.

The Consumer Price Index, 1968

	Monthly	y Index (1	949 = 100	0)			Per Cent Change from One Year Ago					
	Jan.	Feb.	Mar.	April	May	June	Jan.	Feb.	Mar.	April	May	June
Items	152.6	152.7	153.2	154.1	154.2	154.7	4.5	4.5	4.6	4.3	4.1	4.0
Food	150.4	149.8	148.7	149.8	148.9	149.4	3.8	4.0	3.8	4.0	3.6	3.2
Housing	154.7	155.4	156.0	156.6	157.1	157.6	4.8	5.2	5.1	4.3	4.4	4.2
Clothing	133.4	134.0	135.6	136.3	135.8	136.4	3.7	3.8	3.7	3.3	3.0	2.9
Transportation	160.0	159.2	160.3	160.8	161.0	161.8	4.6	2.7	3.0	2.4	2.4	2.3
Health and Personal Care	193.6	194.3	194.3	197.0	197.8	197.9	4.7	5.0	4.9	3.7	3.6	3.8
Recreation and Reading	170.2	171.8	172.5	172.1	174.2	174.2	4.1	5.0	5.4	4.8	4.6	4.2
Tobacco and Alcohol	136.3	136.4	138.4	140.9	141.1	141.1	7.7	7.6	8.5	10.3	10.3	10.1

Source: DBS, Price Movements.

# Budgetary Constraints to Policy Development

# **Taxation and Fiscal Policy Branch Department of Treasury and Economics**

This article contains a discussion of the framework within which annual budgetary decisions are made and new policies developed. In particular, attention is given to the nature and implications of two constraints to the government's ability to respond to increasing and changing demands for public services and facilities. The first constraint is the capacity of existing tax sources to finance required increases in total expenditures. The second constraint is the difficulty of undertaking radical changes in the structure of established and continuing government programs in any one year.

# THE REVENUE CONSTRAINT TO GROWTH

In recent years it has become apparent that provincial and municipal revenues do not have the growth and capacity to meet rapid increases in required expenditures.

# **Growth of Government Revenues Versus Expenditures**

The problem of unbalanced expenditurerevenue growth has been extensively documented in two main studies. First, in preparation for the re-negotiation of federalprovincial financial arrangements in 1966, the Tax Structure Committee (TSC) undertook a comparative analysis of the anticipated growth of federal and provincialmunicipal expenditures and revenues for the period 1966-67 to 1971-72. The result of these projections was that, on the basis of then-existing governmental expenditure programs and tax sources, the combined deficit for all three levels of government would increase during this period. The estimated combined government deficit of \$0.9 billion for 1966-67 was projected to increase to \$2.1 billion in 1971-72 on the basis of an annual Gross National Product growth rate of 6 per cent over the period, or to \$1.4 billion if GNP increased by 7 per cent a year.<sup>1</sup>

The most significant finding of the TSC study, however, concerned the distribution of the total governmental deficit between the federal and provincial-municipal sectors. At the 6 and 7 per cent levels of annual GNP growth, total provincial-municipal deficits were projected to reach \$2.4 and \$2.1 billion respectively by 1971-72. In contrast to this pattern of mounting provincial-municipal deficits, the federal government was expected to record surpluses throughout the period increasing to \$0.3 and \$0.7 billion at the 6

and 7 per cent levels of annual GNP growth.

This first view of the imbalance of provincial-municipal expenditure and revenue growth was confirmed by similar projections undertaken by the Ontario Committee on Taxation (Smith Committee) and published in 1967.<sup>2</sup> The Committee's projections indicated that anticipated combined provincial and local government budgetary deficits in Ontario would increase from about \$116 million in 1967 to over \$1 billion in 1975. Over the same period, the study indicated that the provincial government's own budgetary deficit could be expected to increase from \$81 million in 1967 to about \$900 million in 1975.<sup>3</sup>

It should be emphasized that the TSC and Smith Committee projections cannot be used as definitive quantitative measures of the exact course of expenditure-revenue growth. The obvious difficulty in anticipating future conditions meant that the projections inevitably took the form of extrapolations of past

and then-current government operations and economic conditions, modified by certain assumptions concerning the likely behaviour of such key factors as economic growth rappopulation changes and price increases.

Interim developments have already rendered these projections partially obsolete. The development of new government programs, greater-than-expected price increases and higher rates of economic growth have caused both expenditures and revenues to increase faster than was originally anticipated. While it is not possible to measure accurately the absolute effects of interim changes, they are unlikely to alter significantly the relative growth of expenditures and revenues. In other words, it can be generally assumed that the TSC and Smith Committee were correct in predicting a continued imbalance in expenditure-revenue growth resulting in greater budgetary deficits at the provincial-municipal level during the foreseeable future.

Table 1
Summary of Ontario Government Expenditure and Growth Rates, 1958-59 to 1967-68

		Average Co	mpound Annual	Growth Rate
		1958-59	1963-64	1958-59
		to	to	to
		1963-64	1967-68	1967-
		Per Cent	Per Cent	Per Cen
<b>A.</b>	Total Net General Expenditure	9.5	18.6	13.4
B.	Actual Revenue			
	Total Net General Revenue	10.9	18.0	14.0
	Personal Income Tax	12.8	$35.2^{1}$	$22.3^{1}$
	Retail Sales Tax	_	$23.6^{2}$	_
	Corporation Tax	5.7	9.4	7.3
	Gasoline Tax	4.7	11.1	7.5
C.	Revenue on Basis of 1967-68 Tax			
	Package and Rates throughout Period			
	Total Net General Revenue	6.0	10.3	7.9
	Personal Income Tax	8.5	19.4	13.2
	Retail Sales Tax	5.6	8.8	7.0
	Corporation Tax	5.6	7.2	6.3
	Gasoline Tax	4.7	5.5	5.1
D.	Revenue on Basis of 1958-59 Tax			
	Package and Rates throughout Period			
	Total Net General Revenue	5.3	10.0	7.4
	Component sources will have identical g	rowth rates to thos	e shown under C	, as only
	the 'tax mix' will alter the growth rates of			,
E.	Provincial Domestic Product	5.3	9.2	7.0

<sup>1</sup>Reflects increases in federal abatements of the personal income tax field in stages from 17 points in 1963-64 to 28 points in 1967-68, where the total yield of income tax for each year is taken as 100 points.

<sup>2</sup>A retail sales tax of 3 per cent was introduced in Ontario in 1961 and was increased to 5 per cent in 1966.

<sup>&</sup>lt;sup>1</sup>Report of the Tax Structure Committee to the Federal-Provincial Conference: Projections of Government Revenues and Expenditures, *October 28*, 1966.

<sup>&</sup>lt;sup>2</sup>Report of the Ontario Committee on Taxation, 3 vols. (Toronto: Queen's Printer, 1967).

Table 2 - Net Capital Debt and Provincial Domestic Product, 1963 to 1967

	1962-63	1963-64	1964-65	1965-66	1966-67
	\$ Million				
Net Capital Debt at Year End	1,284	1,345	1,365	1,381	1,360
Provincial Domestic Product N.C.D. as % of PDP	14,605 8.8	15,600 8,6	17,000 8.0	18,700 7.4	20,500 6.6
Theoretical Limit of N.C.D.  per Smith Committee (9% of PDP)	1,314	1,404	1,530	1,683	1,845
Favourable Difference between actual and theoretical Net Capital Debt	30	59	165	302	485

### The 'Tax Mix'

The basic reason for expected increases in provincial-municipal deficits is that, compared with the growth of required government expenditures, total revenues tend to grow more sluggishly because of the relatively heavy reliance of these two levels of government on low-growth tax sources.

This problem may be illustrated by experience over the five-year period 1963-64 1967-68. Table 1 shows that during this wiod total provincial expenditures and revenues increased at an average annual rate of about 18.6 and 18 per cent respectively. However, it is significant that revenues increased in line with expenditures only as a result of sizable increases in provincial tax capacity. The most important of these were the staged increases in federal abatements of the personal income tax field from 17 points in 1963-64 to 28 points in 1967-68. These increased abatements had the effect of increasing the annual average growth rate of provincial income tax revenues during this period to 35 per cent compared with 19 per cent which would otherwise have prevailed. Similarly, the increase in the provincial retail sales tax rate from 3 to 5 per cent in 1966 had the effect of increasing the annual average growth rate of sales tax revenues from 9 to 24 per cent over the five-year period. The result of these tax changes during the period brought the total average annual growth rate of provincial revenues to 18 per cent, comed to a rate of about 10 per cent that would have prevailed without major tax changes during the period.

Two observations are relevant concerning the future growth of provincial revenues. First, it is important to distinguish clearly between the immediate impact of tax changes on revenue flows and subsequent longer-term revenue growth. The tax changes detailed above created a marked upsurge in provincial revenues. But without further and similar changes in tax capacity, government revenues will now increase only as a function of the growth of taxable income and activities. In other words, on the basis of economic growth rates over the past five years, the annual growth rate of personal income tax receipts would settle down to a rate of about 19 per cent, with the growth in total provincial revenues returning to about 10 per cent.

The second observation concerns the critical connection between economic growth and revenue growth. During the past five years, Canada has experienced high and sustained rates of economic growth, which in terms of longer historical perspective may not continue unabated for an indefinite period. For example, while Provincial Domestic Product (PDP) has increased at an annual average rate of 9.2 per cent in the 1963-67 period, the average annual growth rate for the earlier 1958-64 period was only 5.3 per cent. Thus any reduction in the rate of economic growth will be immediately reflected in lower rates of revenue growth. This is particularly so with personal and corporate income tax revenues, both of which are highly sensitive to changing economic conditions.

### **Financing Alternatives**

The review of the provincial 'tax mix' indicates that a continuation of past expenditure

growth rates will produce significant increases in provincial-municipal deficits in general conformity with the TSC and Smith Committee projections.

While it is expected that there will be a decline in expenditure growth rates from the unusually high levels recorded in recent years, it is questionable whether it will be possible to reduce them by the amount necessary to bring them neatly in line with the growth capacity of now-existing total revenue sources.<sup>4</sup> This question in turn raises the problem of how such deficits can be financed either by increases in tax capacity or by borrowing.

### **Debt Financing**

As the Smith Committee pointed out, there are limits to the province's debt capacity if one of the objectives of the province is a high credit rating based on prudent finance. The Smith Committee defines the limit to the province's net debt capacity as 9 per cent of the Provincial Domestic Product. While this level need not necessarily be accepted as irrevocable and definitive, it may be used for present purposes as a convenient benchmark in examining the general scope for future increases in debt operations.

Table 2 shows that, while the 9 per cent ratio was almost reached in the early sixties, it was reduced to about 6.6 per cent at the end of the 1966-67 fiscal year. According to Smith's definition, the province's net capital debt capacity theoretically stood at \$1.8 billion at the end of 1966-67 and exceeded the actual level of net capital debt by 2.4 per cent of PDP or almost \$500 million. This may appear to leave a good margin for debt expansion, but in the face of anticipated expenditure pressures and Smith-projected deficits, this slack would be eliminated fairly quickly. Once the debt to PDP relationship has again reached the limit of 9 per cent, the annual additions to the net capital debt would be severely curtailed and geared to whatever growth is realized in PDP.

If the province were, for example, already at its debt limit at this time, the maximum tolerable increase in the net capital debt during 1968-69 would be about \$140 million (Table 3). Assuming a long-term average growth rate in PDP of 7 per cent, the tolerable annual additions to the net capital debt would slowly rise to \$170 million in 1971-72 and \$210 million in 1974-75. These con-

<sup>&</sup>lt;sup>4</sup>The introduction of program budgeting as a means for reducing expenditure growth by increasing the efficiency and effectiveness of programs is discussed in the last section of this paper.

straints would compare with the increase in net capital debt, projected by the Smith Committee, of \$538 million in 1971-72 and \$897 million in 1974-75.5

On the assumption that there will be no further tax increases and that the province will be able to keep deficits down to those projected by the Smith Committee, the previously indicated leeway of \$500 million would disappear in 1970-71. During the latter year, net capital debt would reach 9 per cent of PDP. However, given the fact that the province has already introduced the basic shelter tax exemption and assumed the cost of the administration of justice,<sup>6</sup> this critical point will be brought forward by one full year.

Table 3 makes a tentative evaluation of the amount and possible form of additional taxation that would be required to maintain the net capital debt at 9 per cent of PDP. Even if 12 additional points of the personal income tax were introduced in 1969-70, they would be inadequate as early as 1971-72. Allowing the net capital debt ratio to rise to 10 per cent of PDP would result in a tolerable debt by 1974-75 of \$3,564 million instead of \$3,208 million. Such a condition would make 12 additional points of the personal income tax, if introduced in 1969-70, just adequate.

There is one important reason why the actual path of debt financing will differ from the one projected in Table 3. The table suggests a relatively rapid build-up of the net capital debt, involving levels of debt financing

in the early years considerably in excess of what would be considered acceptable by current standards of prudence, good credit ratings and capital market accessibility. This further strengthens the point that the timing of required tax increases must be brought forward.

### **Increased Tax Capacity**

The limits to debt increases demonstrate that a large part of future deficits must be financed by increases in provincial tax capacity. This need involves two interrelated problems. The first concerns the type of increased tax capacity required. The second problem relates to how required increases in tax capacity should be achieved.

### High Versus Low Growth Tax Fields

The overriding factor to be considered in securing increased tax capacity is the 'natural' growth potential of the yields of different tax sources. Reference has already been made to the inadequacy of the province's tax mix in terms of its relatively heavy reliance on low growth fields. Consequently, if the composite growth rate of total provincial revenues is to be improved, it will be necessary to increase the relative use of those tax fields which display high growth characteristics.

The relative growth of the Ontario Government's main tax sources is described in Table 1. The most significant feature of this comparison is the high growth capacity of personal income tax yields compared with that of other sources. In short, as the Smith Committee has emphasized, increased use

of the personal income tax field by the province should feature as a significant part of any general move towards increased tax capacity.

Independent Provincial Versus Joint Federal-Provincial Tax Changes

In general terms, increased provincial tax capacity may be secured in two main ways.

The first method is commonly referred to as independent taxing and would involve Ontario changing the use of its own tax fields without reference to federal or other provinces' taxes. The main problem inherent in independent taxing is the possibility of creating inter-provincial disparities in tax levels which may, in turn, adversely affect the competitiveness or distribution of regional economic activity. With respect to the personal income tax field, for example, any increase in Ontario rates would not only have the effect of raising the absolute level of such taxation in Ontario, but could also have the effect of penalizing income-generating activity in Ontario disproportionately to that in other provinces. A similar problem would, of course, be implicit in any increase in Ontario corporate income tax rates above those in other provinces. In general terms, then, there are clearly limits to any province's indepe ent ability to raise taxes.

The second method of securing increased provincial tax capacity is through combined federal-provincial action in jointly occupied tax fields. This question, in turn, has two main aspects.

Table 3 — The Implications of the Smith Committee's Debt Constraints

	1967-68	1968-69	1969-70	1970-71	1971-72	1974-751
	\$ Million					
Projected "Tolerable" Net Capital Debt, at 9% of PDP at year ends Net Capital Debt, actual (67-68) and as projected by Smith, and including	2,000	2,138	2,287	2,447	2,619	3,208
cost of Basic Shelter Tax Exemption and Administration of Justice <sup>2</sup>	1,538	1,989	2,534	3,165	3,925	7,005
Projected Net Capital Debt in excess of "tolerable" limit per Smith			247	718	1,306	3,797
Projected Cumulative Value of 12 additional points of Personal Income Tax if introduced in 1969-70 <sup>3</sup> Projected N.C.D. in excess of "tolerable" limit after additional 12 points of	_		319	686	1,108	2,793
P.I.T.		on the same of the		32	198	1,004
Additional Annual Revenue required to maintain N.C.D. at 9% of PDP				32	166	325

<sup>1</sup>For brevity, the years 1972-73 and 1973-74 are omitted.

<sup>2</sup>The Smith Committee's projections of increases in actual net capital debt to 1974-75 are:

(a) Reduced by estimated advances through the Ontario Universities Capital Aid Corporation, which were included in Smith's calculations. See Smith Report, Vol. 1, p. 214.

(b) Then increased for the estimated costs of the basic shelter tax exemption and administration of justice, because in projecting provincial deficits the Smith Committee did not allow for the cost of the various recommendations of their report. Thus, the annual additions to the net capital debt cited in the preceding page for 1971-72 and 1974-75 of \$538 million and \$897 million are increased in the table to \$760 million and \$1,177 million respectively.

<sup>3</sup>The Smith Committee suggests a staging of additional personal income taxation reaching 8 points in 1968-69, 10 points in 1971-72 and 12 points in 1974-75.

<sup>&</sup>lt;sup>5</sup>See footnotes to Table 3.

<sup>&</sup>lt;sup>6</sup>These were two of the major recommendations

of the Smith Committee.

First, where the total level of combined governmental taxation in Canada is inadequate to finance properly the required growth ombined government expenditures, there ld be an orderly and comprehensive change in the national tax structure. Federal and provincial tax committees have recently undertaken extensive studies of the existing tax systems. The general conclusion of these reports is that there is an urgent need to develop a new tax system that will raise the funds required for public expenditures in an equitable and economically efficient manner. While there is agreement on the importance of tax reform, relatively little attention has thus far been given to the co-ordination of tax reforms at the federal and provincialmunicipal levels. Consequently, there is a need for tax reform with proper recognition of the role of all taxes in a national tax structure, irrespective of whether tax fields are used exclusively or jointly by different levels of government.

The second aspect of joint federal-provincial tax changes relates to the proper distribution of tax capacity between the two levels of government. In other words, apart from the general adequacy of tax revenues in a total governmental sense, each level of government must be given the tax occupancies necessary to finance its responsibilities. In this connection, reference has already been made to the 1966 Tax Structure Committee projections which clearly demonstrate the need for a significant transfer of tax capacity from the federal to the provincial level to match the distribution of projected budgetary deficits.

### **Public Finance and Fiscal Policy**

Finally, in considering the need for a reallocation of tax resources, attention must be given to two other important factors.

The first concerns the federal government's ability to regulate economic activity through tax changes. The Ontario Government's views on how the requirements of efficient public finance and fiscal policy can be reconciled were developed in detail during the technical discussions surrounding the negotiations in 1966 and have been publicly expressed in various statements.<sup>7</sup>

Briefly, it is believed that this goal can be best achieved through the development of tax reements to cover a central package of ared tax fields. This would allow the federal government to use a number of economically significant taxes in concerted fashion to

achieve policy objectives, without fear of countermanding provincial actions. The revenues from this tax system could then be divided between the two levels of government according to their relative expenditure requirements.

The second major consideration concerns the need for balanced growth of the public and private sectors of the economy. This involves the containment of total governmental expenditures within the limits of tolerable levels of taxation and government borrowing. Basic to this is the need for all levels of government in Canada to co-ordinate their expenditures within a commonly agreed system of policy objectives and priorities.

In this connection, encouraging steps have already been taken. At the January meeting of the Ministers of Finance there occurred, for the first time, an extensive discussion of the budgetary plans and problems of the participating governments. These initial exchanges resulted in a common agreement that there is an urgent need to develop effective mechanisms for more rigorous and continued consultation. Such a system should, first, permit the federal government to take fuller account of provincial operations in determining Canada-wide fiscal policy. Second, it should allow provincial policies to be more effectively developed in the context of national patterns.8 Third, it should provide an objective basis for allocating limited tax resources to allow governments to meet recognized priorities.

# CONSTRAINTS TO EXPENDITURE FLEXIBILITY

The second component of the annual budgetary framework concerns the government's ability to meet new expenditure demands within the overall limits set by the revenue growth and borrowing capacity. The main constraint to manoeuvrability in this sense is the need to provide for the orderly continuation and growth of established programs. In any given year, a significant proportion of government revenues is thus effectively preempted, leaving only a relatively small part to be applied to new priorities. This means that, in a very real sense, priority-setting is an evolutionary process in which new programs are steadily built up and other programs phased out or de-emphasized over the course of several budgets.

### **The Structure of Government Expenditures**

A useful insight into the relative inflexibility of provincial expenditures at any given time

can be gained from Table 4. This table sketches the structure of government spending in terms of the administrative operations of departments as well as financial commitments to other governments, agencies and individuals.

A number of observations may be made on the flexibility constraints of various components of total expenditure. First, the government's own operations in the form of departmental expenditures are a relatively small part of the total. The civil service overhead (category A in Table 4) accounts for only 20 per cent of the total, with about 12 per cent in the form of wages and salaries. Insofar as the civil service represents the central core of government operations generally, reductions would run the obvious danger of reducing the effectiveness of existing programs and administrative controls. However, it is a continuing goal to keep the growth in this category to a minimum consistent with required efficiencies. Not all wages and salaries are included in this category. For example, a substantial part of highway maintenance, which is another relatively inflexible type of expenditure (shown under category F), consists of salaries and wages. Other expenditures incorporating salaries and wages are highway and public works construction.

Departmental capital expenditures on physical assets (category E) represent the provision of essential social capital, of which roads form the major component. These capital expenditures, though essential, are often considered partly flexible in terms of their timing and in the manner in which they are financed. On the latter aspect, depending on the overall fiscal policy requirements of the time, a smaller or larger proportion of these expenditures will usually be financed out of ordinary revenues.<sup>9</sup>

Perhaps the most significant feature of Table 4 is the high proportion of total expenditures allocated to the financial support of local governments, school boards and agencies. The most confining aspect of these payments, making them the least flexible in principle, is the fact that they are primarily statutory or contractual commitments, in large part based on expenditure decisions made at the local level. For instance, the legislative grants to school boards, accounting for some 21 per cent of total budgetary spending, are based on a formula. This formula is regularly revised to ensure that provincial support of rapidly rising school board

<sup>8</sup>For a fuller discussion of provincial fiscal policy, see C. L. Barber, Theory of Fiscal Policy as Applied to a Province, Ontario, Committee on Taxation (Toronto: Queen's Printer, 1968).

Table 4 - Classification of Estimated Total Budgetary Expenditures, Loans and Advances, 1967-68 Fiscal Year

	\$ Million	Per Cent of Total		\$ Million	Per Cent of Total
<ul> <li>A. Civil Service Overhead</li> <li>Salaries, Wages, Fringe Benefits &amp; Associated Operating Costs (est.)<sup>1</sup></li> <li>B. Major Statutory or Contractual Obligations</li> </ul>	467	20.4	E. Capital Expenditure Highways and Roads Provision of Accommodation Property Purchases for Roads & Parks GO Transit	190 53 34 5	8.3 2.3 1.5
Legislative Grants to School Boards, etc. Unconditional Grants to Municipalities Teachers' Superannuation	490 40 48	21.4 1.7 2.1	Other  F. Other Departmental Expenditure	2 284	.1.
Road Construction & Maintenance Grants Hospital & Health Grants, etc. Welfare-type Grants Other Statutory or Contractual Grants to Municipalities & Local Boards or Institutions Interest on Public Debt	128 40 44 34 66	5.6 1.7 1.9 1.5 2.9		66 59 7 95 25 52 304	2.9 2.6 .3 4.1 1.1 2.3 13.3
C. Major Transfer Payments to Persons Payment under Family Benefits Act Premium Assistance under OHSC, OMSIP2 Contribution to Legal Aid Fund Scholarships, Bursaries & Research Grants	890 16 4 4 92	38.8 1.9 7. 2.2 1.2 4.0	Sinking Fund  G. Loans and Advances Ontario Education Capital Aid Corporation Ontario Universities Capital Aid Corporation Hydro-Electric Power Commission – secured advances less discount Ontario (& Student) Housing Corporation Municipal Works Assistance –	2,291 175 105 123 48	100.0
D. Major Transfer Payments to Institutions Operating Grants to Universities Operating Grants to CAATS & Ryerson <sup>2</sup> Other Educational Grants Operating Payments to O(S)HC <sup>2</sup> Other	194 29 17 4 10 254	8.5 1.3 7. 2. 4.	Loans for Hospital Construction and Capital Assistance Ontario Junior Farmers' Establishment Loan Corporation Ontario Water Resources Commission Ontario Municipal Improvement Corporation All Other	22 22 16 9 12 582	

<sup>&</sup>lt;sup>1</sup>Excludes salaries and wages included elsewhere in such specific areas as highways construction and maintenance, or capital projects of Public Works.

<sup>&</sup>lt;sup>2</sup>The initials OHSC refer to the Ontario Hospital Services Commission, OMSIP to Ontario Medical Services Insurance Plan, CAATS to Colleges of Applied Arts & Technology, and O(S)HC to Oyorio (& Student) Housing Corporation.

high level. The Ontario Government has entered these commitments in recognition of all financial constraints and the need to re essential expenditures for the maintenance and growth of local services and educational capacity. The expenditures within the relatively inflexible category B commit almost 40 per cent of the provincial budget.

In addition, the provincial government has equally strong commitments to assist in financing higher education. The universities depend on the government for the largest part of their very large and rapidly rising expenditures. In addition, the Colleges of Applied Arts and Technology (CAATS) are entering a phase of rapid expansion and greatly increased cost which will have to be assumed by the government. Entered under category D in the table, these costs already account for 10 per cent of the budget and can be expected to absorb a growing proportion in the near future.

The temporary build-up of Canada Pension Plan Funds has enabled the government to make loans and advances to school boards and universities to cope with their tremendous capital expansion requirements. This procedure has, in fact, proven to be vastly re efficient and economical than a situation in which the school boards would have been forced to do their own borrowing in the capital market. As shown in Table 4, some \$280 million was made available this way during 1967-68.

Table 4, therefore, clearly illustrates the many rigid factors that play a dominant role in the provincial budget. This is not to suggest that the province lacks discretionary powers in these areas, but only that the government has accepted these persistent rigidities and growth areas in its budget in recognition of the essential needs behind each of these programs. Any reduction or even stabilization of total support under programs of this nature would presumably result in higher property taxes and inadequate services at the local level as well as in the universities. Curtailment of support for the latter would probably make university training available to fewer eligible students.

### The Growth of Expenditures

Table 4 provides a useful cross-section of the princial expenditure structure in 1967-68. at there is another and more dynamic aspect to the government's commitments to established priorities. This concerns the

Table 5 — Annual Percentage Rate of Change in Enrolment in Ontario Elementary and Secondary Schools, CAATS and Universities<sup>1</sup>

Year	Elementary	Secondary	CAATS		University Full-Time			
			Minimal	Probable	Under- graduate	Graduate	Total	
1966-67	3.7	8.6	21.3	21.3	16.8	12.7	16.3	
1967-68	2.1	3.0	62.7	62.7	13.9	26.6	15.3	
Projections	3							
1968-69	2.0	2.7	28.6	69.8	10.2	17.6	11.1	
1969-70	1.3	1.6	23.6	30.3	7.5	13.9	8.3	
1970-71	0.8	1.2	7.8	25.1	6.5	11.5	7.1	
1971-72	-0.4	0.2	7.2	20.4	5.6	9.6	6.2	
1972-73	-0.1	0.4	6.7	17.7	5.2	8.1	5.6	
1973-74	-0.3	0.3	5.5	14.8	5.0	7.5	5.4	
1974-75	-0.4	0.3	5.2	13.5	2.0	5.9	2.6	
1975-76	<b>—</b> 0.5	0.2	4.7	11.4	1.6	5.6	2.3	

The enrolment ratios used in calculating the rates of increases in enrolments for the various education levels are as follows: elementary schools at 93.6 per cent of the 5 to 14 year age group; secondary schools at 73 per cent of the 15 to 19 age group; CAATS, at minimum rising from 5.5 per cent of the 18 to 20 age group in 1968 to 10 per cent in 1976, or probably rising from 5.5 per cent in 1968 to the higher ratio of 25 per cent in 1976; university undergraduate rising from 15.1 per cent of the 18 to 21 year age group in 1967-68 to 18 per cent in 1975-76; and university postgraduate enrolment rising from 16.1 per cent of the three-year moving average of undergraduates in 1967-68 to 20.0 per cent of the three-year average in 1975-76.

growth of existing programs. Growth may occur as a program is gradually brought to operational standing over several years, as demand increases due to economic expansion and population growth or as qualitative improvements and extensions are made.

Again, education outlays provide a particularly dramatic example of the impact of economic expansion and population growth. During recent years they have increased at an annual rate of about 25 per cent to the point where they account for over 40 per cent of total provincial expenditure. This occurred as a direct function of the post-war upsurge in birth rates, together with rising costs and rising post-secondary enrolment ratios.

In 1960, births in Ontario reached a peak of 159,000. For more than 20 years they had been increasing steadily from a low of 62,000 in 1937. But while the peak in births occurred about eight years ago, the effect of declining birth rates will not be reflected in lower total enrolments for some time. This is partly because the decline in birth rates has been quite slow, and partly because of increased post-secondary enrolment ratios as well as increased migration from abroad and from other provinces.

A more detailed view of the implications of post-war births for educational enrolment

up to 1975-76 is provided in Table 5. Total elementary school enrolments can be expected to level off after 1970-71. This pattern will be repeated in delayed fashion at the higher education levels. Much depends, however, on the behaviour of enrolment ratios. At present, 15 per cent of 18 to 21 year olds are enrolled as undergraduates and about 2.4 per cent of 21 to 24 year olds as postgraduates. Increases in the complexity of industrial technology are very likely to increase these ratios and offset the effects of the decline in birth rates on total post-secondary enrolment.

The need to meet industrial demand for more highly skilled manpower and broaden the range of post-secondary education, resulted in the rapid development of the CAATS system. The outlook for future enrolment is likely to be about a 66 per cent increase in enrolment next year to reach close to 33,000 students as the institutions move into full operation. If the ratio of student enrolment moves up to 20 per cent of the 18 to 20 year age group by 1975-76, this would then produce a total enrolment of 88,500 in that year. The Department of Education estimates that about 60 per cent of grade 12 graduates will continue to CAATS. If they stayed for an average of two years, there would be about 25 per cent of the 18 to 20 year olds in CAATS or approximately 110,000 by 1975-76.

Along with the large increases in education enrolments projected to the mid-1970's, there are also likely to be significant cost increases. The Ontario Institute for Studies in Education estimates that elementary school operating costs will increase by 5.3 per cent a year up to 1975 from a base of \$483 per pupil in 1968, while secondary school costs will rise by 6.4 per cent from \$1,027 per student. Similarly, university operating costs per student have been increasing at 6 to 8 per cent over the long run. More recently per-student costs have grown at even higher rates; hence it is assumed that unit costs will rise at about 8 per cent per year over the period to 1975-76. Details of the joint impact of projected enrolment and cost increases are given in Table 5. Thus, total operating costs for universities are projected to increase by 196 per cent between 1967-68 and 1975-

Table 6 — Projected Enrolment and Operating Costs of Various Educational Streams

	1967-68	1968-69	1975-76	Percentage Increase from 1967-68 to 1975-76
	1707-08	1900-09	1775-70	10 1 7 7 3 - 7 0
Universities	<b>7</b> 0.000	07.000	106 500	<b>50.0</b>
Enrolment	79,089	87,900	126,500	59.9
Operating costs per student	#2 070	Ф2 <b>2</b> 27	<b>05.407</b>	0.5.1
(increase of 8% a year)	\$2,970	\$3,237	\$5,497	85.1
Total operating costs (million)	\$234.9	\$284.5	\$695.4	196.4
CAATS				
Enrolment <sup>1</sup>	19,437	25,000	44,000	126.4
Enrolment <sup>2</sup>		33,000	110,000	_
Operating costs per student				
(increase of 6.5% a year)	\$1,800	\$1,917	\$2,980	65.6
Total operating costs <sup>1</sup> (million)	\$35.0	\$48.0	\$132.0	277.3
Total operating costs <sup>2</sup> (million)		\$63.3	\$333.0	
Secondary Schools				
Enrolment	462,300	483,600	559,500	21.0
Operating costs per student				
(increase of 6.4% a year)	\$1,027	\$1,093	\$1,687	64.3
Total operating costs (million)	\$474.8	\$528.6	\$943.9	98.8
<b>Elementary Schools</b>				
Enrolment	1,392,900	1,421,300	1,426,900	2.4
Operating costs per student	,,-	, ,-,-	, -,-	
(increase of 5.3% a year) <sup>3</sup>	\$482	\$508	\$729	51.2
Total operating costs (million)	\$671.4	\$722.0	\$1,040.2	54.9
Total Post-Secondary Enrolment <sup>1</sup>	98,526	112,900	170,500	73.1
Total Post-Secondary Enrolment <sup>2</sup>		120,900	236,500	_
<b>Total Elementary and Secondary</b>				
Enrolment	1,855,200	1,904,900	1,986,400	7.1

<sup>&</sup>lt;sup>1</sup>These figures are based on minimal increases in CAATS enrolment ratios.

76, with those of CAATS rising by 277 per cent. Corresponding increases at the elementary and secondary school levels will be less marked at 55 per cent and 99 per respectively.

### Refinement of the Province's **Budgetary Process**

The nature of the government's commitments to established programs at any given time emphasizes the importance of developing a system that allows orderly changes in expenditure patterns over the course of several budgets. To achieve this objective, the government is refining the province's budgetary process through the introduction of program budgeting. Briefly, the purpose of this system, which is relatively new for governments, is to place increased emphasis on policy objectives so that limited resources are used with maximum effectiveness and efficiency in achieving those objectives.

The Ontario Government's approach to program budgeting is also based on the recognition that government expenditures may have a number of different effects. These may be usefully divided into two groups:

First, program effects are the direct advantages which accrue from achieving the specified objectives of a program. These may of a social, cultural or economic nature. Some programs are mainly of a social and cultural nature, with secondary economic results of varying importance. Improved education, health and public housing facilities raise social and cultural standards, but also serve to improve the physical skill and mobility qualities of the province's manpower resources to meet technological and industrial change. On the other hand, the effects of some programs are almost entirely economic. Provincial and provincially assisted road expenditures, for example, serve to improve the competitiveness of Ontario industries by increasing efficiency in the movement of goods and services.

Second, apart from the specific economic effects of programs, total government expenditures have an important effect on the overall level of economic activity and employment in the province. This total effect is related to the need for maintaining a proper balance between the growth of the public and private sectors, which has already been referred to. This process has two aspects. the long run, increased government expentures on public facilities and services are required if they are to meet the demands

 $<sup>^2</sup>T$ he enrolment estimates under $^l$  may, however, be unrealistic, particularly since only 10 per cent of the relevant age group are assumed to be enrolled by 1975-76. As the text and Table 5 show, much higher enrolment ratios may be expected. Thus the figures under<sup>2</sup> provide a view of the implications of higher enrolment rates for total enrolment.

<sup>&</sup>lt;sup>3</sup>The estimates for cost increases for the various education levels are as follows: elementary schools, 5.3 per cent estimate by OISE based on current operating costs and past cost trends; secondary schools, 6.4 per cent estimate OISE based on current operating costs and past cost trends; CAATS, 6.5 per cent based on Dept. of Education estimate of current operating costs which are projected to increase at the same rate as secondary school costs; universities, 8 per cent based on Dept, of University Affairs estimate of current operating costs and past cost trends.

associated with economic growth in the private sector. In the short run, however, total vernment expenditures should, as far as ible, complement rather than compete the demands of industry for economic resources. This is the essence of a countercyclical fiscal policy. Thus, increased government expenditures designed to take up unused manpower and other resources will have the effect of maintaining employment and economic growth during periods of relatively slack economic activity. But such increase during periods of buoyant economic activity may have the effect of drawing resources away from the private sector and result in slower rates of industrial growth and increased price pressure.

In recognition of the foregoing broad economic effects of government expenditures, this program budgeting system is being developed in association with a national accounting framework. Thus the Ontario Government hopes to develop basic tools for maximizing expenditures benefits by allowing all programs to be evaluated according to common standards, namely, their effectiveness in terms of specific objectives and their contribution to the overall requirements of the economy. This is a significant change in hasis from the traditional expenditure evaluation and control which placed primary emphasis on how much money is spent on such items as departmental salaries, travel and maintenance.

The approach to government budgeting now being developed in terms of a system of programs and activities has a number of benefits. First, management has a more appropriate criterion for evaluating the efficiency of resource-use in achieving specified objectives. Second, given program objectives, gaps or overlaps in the component activities or in the range of departmental programs are less likely to occur. Third, as needs and objectives change, programs can be more readily adjusted or discontinued because the relationship between costs and benefits becomes more readily apparent.

Complementing the categorization of expenditures by program and activity is their division into the national accounting categories of wages and salaries, goods and services, transfer payments, loans and interest on public debt. Further sub-grouping into classes of current and capital goods and services, type of transfer payments, for example, clarifies what the economic effects of expenditures are likely to be. The effective relationship between inputs of various kinds and outputefficiency of government produced goods and services can then be analysed. The flow of funds between various parts of the government sector can also be analysed. The contribution by the government sector to real capital formation can be measured more accurately.

Setting the provincial budget in a national accounting framework also makes the total impact of the government sector on the economy as a whole more apparent. The degree of impact can then be assessed and related to the growing demand for social goods and services with which the government is faced.

Departments have made good progress in the task of grouping expenditures by program. All departments are now preparing five-year forecasts in which expenditure estimates will be grouped, both by program and by economic objects. These forecasts will be reviewed in the spring or early summer and become part of the regular budgetary cycle. Once the techniques of program budgeting and the use of a national accounting framework have been tested, they will be increasingly applied in the preparation of the Estimates.

In co-operation with the Department of Civil Service, a training program is being devised to acquaint all levels of management with the concepts and techniques of program budgeting.

To ensure compatibility, the definition of economic objects of expenditure is being undertaken in close co-operation with the Dominion Bureau of Statistics and with reference to the federal expenditures coding system. Placing the provincial budget in a national accounting framework will improve the accuracy of provincial figures in the

National Accounts. This in itself is a contribution to more accurate economic and financial analyses of the nation's economy.

The refinement of the province's budgetary process will also contribute to improved priority planning between levels of government. The need for improved intergovernmental priority planning and for co-ordinated fiscal policy has already been discussed in this paper. It is now widely recognized.

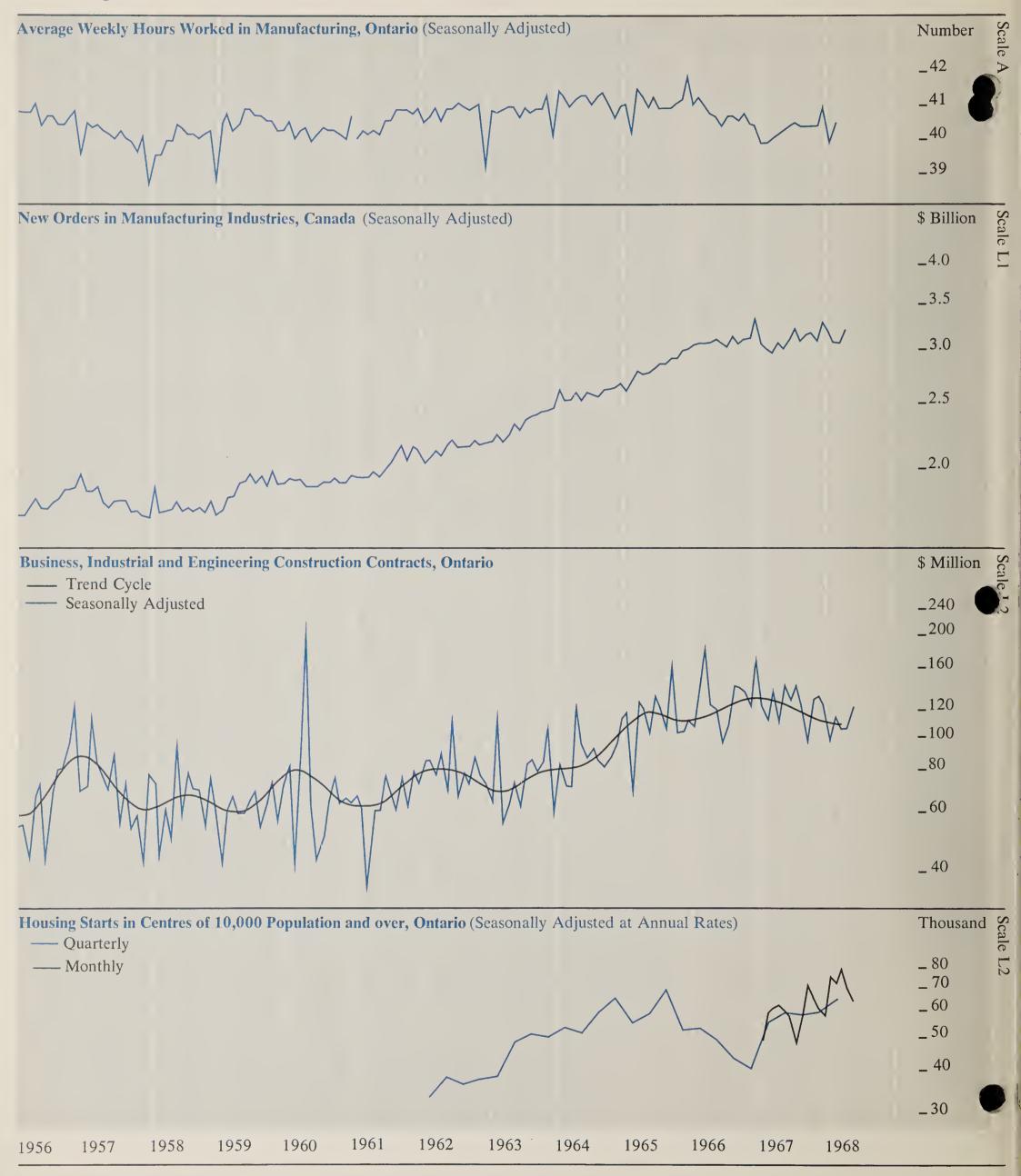
In its Fourth Annual Review, The Economic Council of Canada stated "... it is essential to have more effective co-operation and co-ordination among the three levels of government in regard to ... the pace of overall expansion of government spending; the appraisal of purpose, costs versus benefits, and consistency of objectives and results and the setting and reviewing of priorities .... The exchange of statistical and other factual information is absolutely essential for appropriate co-operation and review along these lines; the present exchange of information is not adequate to these needs."<sup>11</sup>

The Smith Committee also pointed out that federal-provincial and inter-provincial fiscal policy planning has now become a vital necessity and that, to achieve it, appropriate technical expertise must be available to governments.<sup>12</sup>

Ontario is the first province to attempt the combined implementation of program budgeting and a national accounting framework. Given the objective of compatibility with the federal expenditures classification, this is already a contribution to the more meaningful exchange of factual information on which co-ordinated fiscal policy decisions must be based. It may also prove to be the initial step towards the nation-wide use of technically compatible figures, so important to the task of achieving co-ordinated fiscal policy planning in a federal state. Given the size of our budget and the significance of our expenditures to the national economy, it is fitting and proper that these measures should have been taken first in Ontario.

# Selected Economic Indicators

**Leading Indicators** 

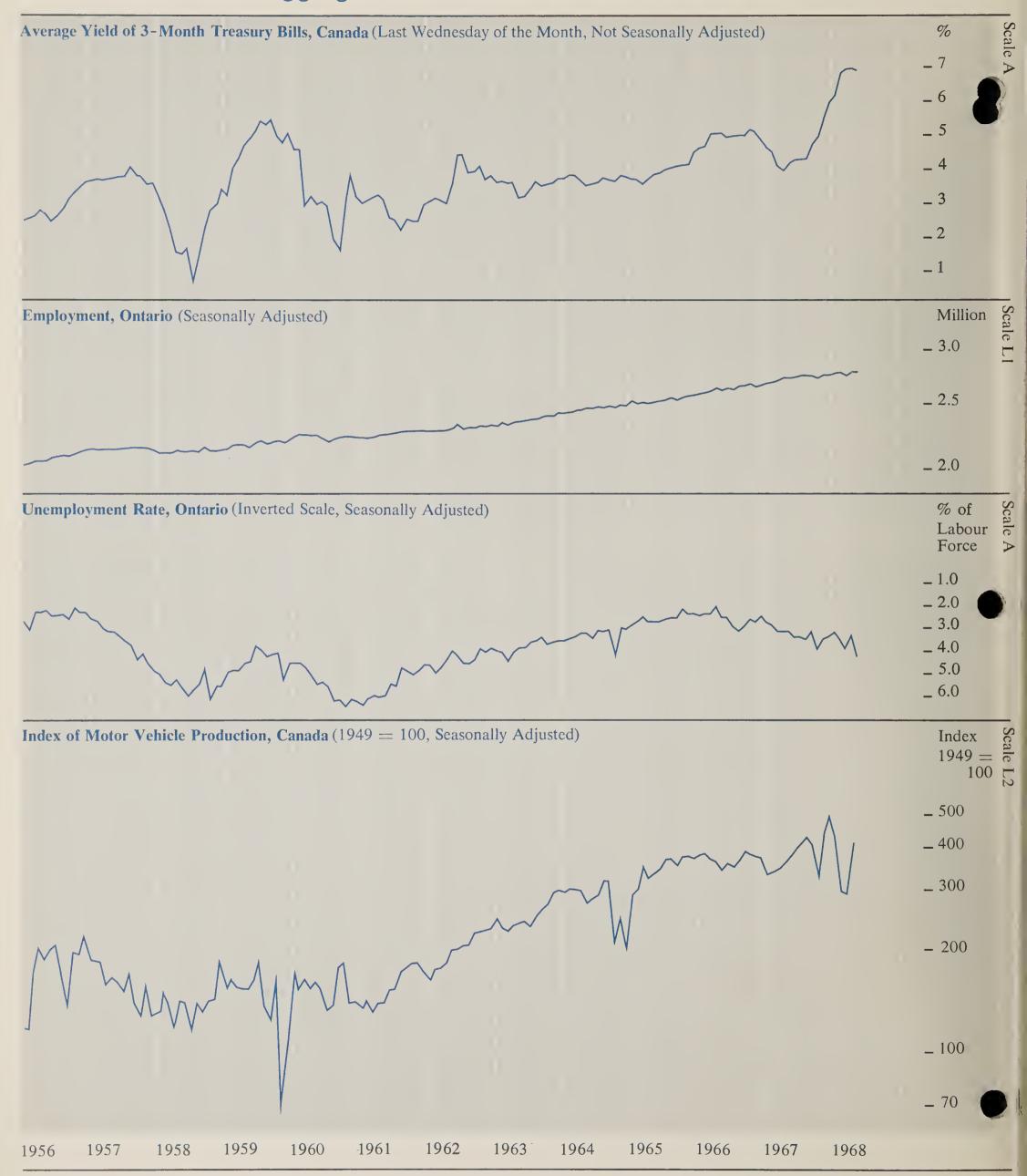


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# **Leading Indicators**



# Coincidental and Lagging Indicators

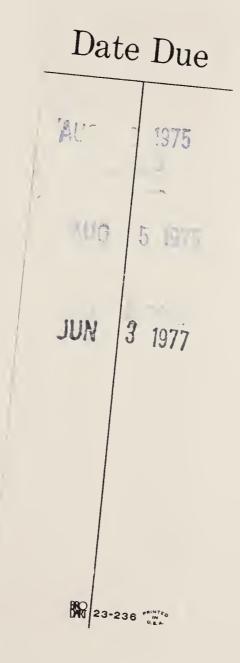


# Economic Indicators Seasonally Adjusted

		1967								1968					
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
Leading Indicators Average Weekly Hours Worked in Manufacturing New Orders in Manufacturing Industries <sup>c</sup>	Number \$ Million	40.3	40.4	40.5	40.4	40.4	40.4	40.4	40.9	39.9	40.5	3,078	3,209		
Business, Industrial and Engineering Construction Contracts Urban Housing Starts Money Supply T.S.E. Industrial Index <sup>u</sup> Business Failures <sup>u</sup> Business Failures – Liabilities <sup>u</sup>	\$ Million Number \$ Million 1956 == 100 Number \$ Million	143.5 60,100 22,522 161.44 40 3.3	129.0 57,800 22,614 164.54 59 59	129.3 48,900 22,797 169.66 52 3.2	121.6 57,500 23,191 166.85 26 4.1	99.2 72,100 23,755 168.72 34 3.6	129.7 66,100 23,839 157.39 79	133.0 61,000 24,041 161.60 43 2.9	125.4 58,700 24,147 162.28 73 24.3	99.3 76,600 24,149 157.43 54 2.6	114.5 72,700 24,079 150.24 59 1.8	105.1 79,400 24,682 146.88 87 5.6	105.4 69,200 24,974 160.43 52 6.4	122.6 24,987 157.87 50 50 2.8	166.61
Coincidental and Lagging Indicators Gross National Product <sup>c</sup> (Annual Rate)	\$ Million		62,072			62,372			62,992			64,828			
Average Hourly Earnings in Manufacturing 3-Month Treasury Bill Ratec, u Cheques Cashed in Clearing Centres 1	\$ % \$ Million \$ Million	2.49	2.51 4.28 5,154	2.55 4.32 5,121	2.56 4.34 4,983	2.56 4.76 5,133	2.58 4.95 5,081	2.58 5.46 5.459 773	2.60 5.95 5,485	2.59 6.29 5,006 803	2.58 6.80 4,959	6.98 5,313 780	6.99 5,031	6.95	
Ketali Trade Labour Force Employed Unemployed	\$ Million 000's 000's 000's	2,835 2,748 87	2,844 2,750 94	2,862 2,767 95	2,860 2,763 97	2,851 2,762 89	2,853 2,746 107	2,860 2,764 96	2,856 2,762 94	2,857 2,769 88	2,892 2,793 99	2,869 2,760 109	2,890 2,796 94	2,918 2,844 122	2,962
Unemployed as % of Labour Force Wages and Salaries Index of Industrial Employment	\$ Million 1961 = 100	3.1 1.051 124.7	3.3 1,053 124.4	3.3 1,064 124.9	3.4 1,071 124.6	3.1 1,075 124.6	3.8 1,070 124.4	3.4 1,086 125.7	3.3 1,094 125.8	3.1 1,109.6 126.1	3.4 1,099.5 124.3	3.8	3.3	4.2	4.0
Index of Industrial Production <sup>c</sup> Total Manufacturing <sup>c</sup> Non-Durables <sup>c</sup> Durables <sup>c</sup> Mining <sup>c</sup> Electric Power and Gas Utilities <sup>c</sup> Primary Energy Demand (Annual Rate)  Exports (including re-exports) <sup>c</sup> Imports <sup>c</sup>	1949 = 100  BKWH \$ Million \$ Million	280.0 246.9 242.7 251.8 415.4 563.2 50.85 951.3	280.8 247.3 245.1 249.9 424.2 555.1 50.70 962.6 893.5	283.6 249.0 243.8 255.2 428.4 572.9 50.64 914.5	284.6 250.9 245.0 257.7 426.2 565.5 51.61 925.2	284.3 251.7 246.0 258.3 421.9 555.8 50.98 861.3	282.4 247.5 246.2 249.0 431.2 568.0 52.41 956.7 889.5	289.4 256.3 249.0 264.8 425.7 571.7 53.86 969.4 882.5	291.0 257.1 247.1 268.9 440.7 572.9 53.78 1,023.0	288.2 253.1 247.1 260.2 422.8 605.9 55.60 1,077.7	285.1 248.4 250.0 246.6 435.3 596.9 55.15 1,140.4 1,093.9	285.3 249.1 253.9 243.5 439.6 583.0 54.01 1,125.7	291.5 257.0 255.3 259.0 434.3 582.1 53.94 1,166.7 1,033.2	53.81	
Unclassified Indicators Foreign Exchange Reserves <sup>c,u</sup> Industrial Materials Price Index <sup>c,u</sup> Consumer Price Index <sup>c,u</sup>	U.S. \$ Million 1935-39 = 100 1949 = 100	2,195 254.6 148.1	2,169 256.7 148.8	2,183 253.0 150.2	2,198 252.0 150.9	2,221 251.2 150.7	2,303 250.1 150.5	2,277 252.9 151.0	2,268 254.3 151.8	2,175 253.5 152.6	2,490 252.4 152.7	2,244 253.0 153.2	2,416 251.2 154.1	2,695 255.5 154.2	259.9

cStatistics for Canada. uNot seasonally adjusted. 1Ontario less Toronto.

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Sept/Oct 1968 Volume 6, Number 5

**Department of Treasury and Economics** 

Hon. Charles S. MacNaughton, Treasurer of Ontario and Minister of EconomicsH. Ian Macdonald, Deputy Minister





# Ontario Economic Review

September/October 1968 Volume 6, Number 5

# The Ontario Economy

# The Pattern of Consumer Expenditures at Provincial and Regional Level

R. H. Frank and I. M. Rash **Department of Treasury and Economics** 

# Selected Economic Indicators

A publication of the **Department of Treasury** and Economics Government of Ontario

Hon. Charles S. MacNaughton Treasurer of Ontario and Minister of Economics H. Ian Macdonald Deputy Minister

The Ontario Economic Review is prepared and edited bimonthly in the Economic Analysis Branch of the Economic and Statistical Services Division, Department of Treasury and Economics. The review presents articles of interest as well as current information on economic activity in Ontario. Signed articles reflect the opinions of their authors and do not necessarily represent the views of the Department.

Subscriptions can be obtained free of charge by writing the Editor, Ontario Economic Review, Department of Treasury and Economics, Frost Building, Queen's Park, Toronto 5, Ontario.

# **About the Review**

The feature article for the September-October edition of the Ontario Economic Review summarizes a pilot study on the pattern of consumer expenditures at provincial and regional level.

The textual and statistical material for this study was developed in the Economic Analysis Branch as part of a continuing econometric program designed to provide detailed quantitative analyses of major sectors of the Ontario economy. This study represents the first of a series of monographs devoted to the development of economic data at provincial and sub-provincial level to provide the basis for the design of an econometric model for the Province of Ontario.

The article was prepared by Mr. R. H. Frank, Director of the Economic Analysis Branch together with Mr. I. M. Rash of the unit's econometric section within the Economic and Statistical Services Division.

# **Indicator Charts, Pages 14-16**

Fluctuations in aggregate economic activity – commonly used to define business cycles – do not necessarily correspond with fluctuations in the individual activities which make up the aggregate. Instead different indicators of economic activity may vary with respect to both their rates of growth and the timing of their peaks and troughs: some may grow more rapidly than others, some change direction sooner.

Those activities which tend to assume a direction in advance of the aggregate – because they relate to future rather than present production – are referred to as leading indicators, and are widely used to anticipate the short-run future course of the overall economy. The charts on pages 14-16 in the Ontario Economic Review present a number of these leading indicators, as well as several which are coincidental to or lag behind the aggregate, to provide for the reader an opportunity to make such an evaluation.

While comparisons of the timing and direction of general changes in the various indicators can readily be made, great care must be exercised in making such a comparison of the amplitude of fluctuations. Of the three vertical scales used – 'A' (arithmetic) and 'L1' and 'L2' (logarithmic scales with one and two cycles respectively over a given vertical distance) – only the logarithmic scales can be used to compare relative changes in different indicators. And this applies only when all series being compared are on the same logarithmic scale. In such a situation all parallel lines represent equal rates of growth, the exact rate of growth being determined by the slope of the line.

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Business activity seems to have accelerated moderately in the second quarter of 1968 after two years of slow growth. However, the economy still is running well below capacity s indicated by an unemployment rate ging above 4.5 per cent for the first six months. This is the highest rate experienced for almost four years. In May and June the unemployment rate turned up sharply following an unusually large influx into the labour force of students seeking summer jobs. The June rate of unemployment seasonally adjusted was 5.5 per cent of the labour force. In the same month total employment was three per cent higher than a year earlier as opposed to a year-to-year increase of about four per cent in June 1967 when the seasonally adjusted unemployment rate was 4.2 per

The main force behind the Canadian expansion in recent months has been exports which for the first half of 1968 have risen by approximately 16 per cent over the same period last year, while imports have risen by less than 10 per cent. As a result the merchandise trade surplus widened sharply to over \$500 million from \$155 million for the same period in 1967. The increase in exports was almost entirely accounted for by shipments to the United States, which rose by · 25 per cent. Such a high rate of growth of exports cannot be expected to continue since the majority of the increase was influenced by the prolonged copper strike in the United States, stock-piling of steel in anticipation of a possible strike and a sharp rise in exports of automobiles and parts under the Canada-United States Automobile Agreement.

Canada's strong merchandise export trade has been sustained despite problems in wheat marketing. Canada's share of total wheat exports of the four major countries involved in such trade has fallen to 20 per cent from 31 per cent in the previous crop year. Not only have no additional orders been placed by Russia and China but wheat exports to traditional customers such as Britain and Japan have also declined. At the turn of the crop year on July 31, Canada had approximately 670 million bushels of unsold wheat, the largest carry-over in a decade and second only to the carry-over of 733 million bushels in 1957.

Moreover, the Dominion Bureau of Statisestimates the 1968 wheat crop at 649 non bushels, considerably above the tenyear average of 540 million bushels. How-

ever, there is some hope for improvement in the coming year since the U.S.S.R. may need to augment current purchase commitments as a result of severe drought in the wheat belt of central and eastern Europe.

Additional problems have been created by persistent heavy rains throughout most of Western Canada. Since the grain handlers' strike on July 15 any eastward movement of wheat to St. Lawrence elevators has been stalled and with existing storage facilities now utilized to capacity much of the crop remains unharvested. The Federal Department of Agriculture estimates that due to wet weather the crop quality has deteriorated rapidly and since August 15 as much as 100 million bushels of the prospective yield may have been lost. With rain continuing further losses are estimated at 30 million to 40 million bushels a week. To the farmers who are paid for their grain when it is delivered to local elevators the present loss of over 100 million bushels represents a financial loss of up to a \$1.50 per bushel or in excess of \$150 million. Losses in quality of that wheat still suitable for harvesting are estimated to be as high as fifty cents a bushel which means that in Saskatchewan, where the rains were heaviest, farmers will be marketing much of their wheat at one dollar a bushel or less. This will mean substantially reduced incomes for many farmers and consequently business across the West will suffer resulting in similar repercussions in eastern Canada.

Taxation in Ontario: A Program for Reform On September 16th the Select Committee of the Legislature on the Report of the Ontario Committee on Taxation presented its findings in a 314-page document entitled "Taxation in Ontario: A Program for Reform." The Select Committee, appointed on May 31st, 1968, to study the 347 recommendations of the Smith Committee's report, reached its decisions after two months of public hearings in Ontario's major cities and a month of *in camera* deliberations.

The proposed program for reform comprises three main departures from the recommendations of the Smith Report. Unquestionably, the most radical of these departures is the recommendation to substitute income tax credits for exemptions from the Retail Sales Tax (e.g. food and children's clothing) and for the present basic shelter exemption. In the field of real property tax the Select Committee moved to reduce the tax burden on residential property by endorsing the

Smith Committee's recommendation to abolish the split mill rate and advocating a reduction in the proportion of taxable assessment to actual assessment for residential property from 0.70 (which was recommended by the Smith Committee) to 0.60. The decision to recommend this reduction in the tax burden on residential property was prompted by testimony at the public hearings which indicated that the adoption of Smith's package of proposals concerning the taxation of real property would increase the burden of tax on residential property relative to the burden on commercial and industrial property.

In its third major departure, the Select Committee substantially modified the Smith Committee's recommended formula for payments by the Ontario government to mining municipalities. A new equalization grant for ordinary mining municipalities, determined by multiplying the per capita fiscal impairment of the municipality by its population and then by its mill rate, was advocated. Fiscal impairment was defined by the Select Committee as the difference between the average per capita assessment for the province as a whole and the per capita assessment in the mining community in question. In contrast to the Select Committee, the Smith Committee had defined fiscal impairment as the "amount needed to make the community's ratio of commercial and industrial assessment to total assessment equal to that same ratio for similarly situated nonmining municipalities." In conjunction with redefining fiscal impairment the Select Committee rejected the Smith Committee's recommendation to reduce fiscal impairment by the proportion of resident mining employees to the number of all employed persons in the community. Finally the Select Committee suggested that equalization payments could be extended to all fiscally impaired municipalities in the province.

The Select Committee's revised formula for mining revenue payments applies both to ordinary mining communities and to a new class of mining municipality which it labelled mining-industrial municipality. Mining-industrial municipalities would levy a real property tax on the processing facilities of mines within their boundaries; consequently their dependence on payments from the province would be reduced and possibly eliminated. However, if the per capita assessment of a mining-industrial municipality remained below the provincial average after including its

1

The Ontario Economy

assessment of processing facilities, it would receive an equalization grant as well. An example of a mining-industrial municipality would be an amalgamated Sudbury and Copper Cliff.

Other recommendations of the Select Committee which differ from those in the Smith Committee's report include:

- 1. A recommendation that corporation and personal income taxes bear a higher share of Ontario's future revenue needs than suggested by the Smith Committee.
- 2. A recommendation for a new graduated business occupancy tax based on taxable assessment ranging from 10 per cent to 50 per cent of the increment of assessed value of the real property in contrast to the Smith Committee's recommended flat rate business tax based on 50 per cent of assessment.
- 3. A definition of a working farm, to enable municipal assessors to distinguish between property for agricultural operations which is to be taxed on 40 per cent of assessment and residential and business properties which are to be taxed on 60 per cent of assessment.<sup>1</sup>
- 4. An immediate start on a four-stage program for implementation of regional government, beginning with discussions at the municipal level and supervised by a special branch of the government.
- 5. A modification of the Smith Committee's proposals for taxation of resource-based industries.
- 6. A recommendation to increase the succession duty exemption for widows to \$90,000 from the present \$75,000 and to extend it to include all widowers.

While the Select Committee's report contains a number of departures from the Smith Committee recommendations, the latter can by no means be shelved at this time. Indeed, the majority of the Smith Committee's 347 recommendations were adopted either outright or with some modification by the Select Committee. Moreover, much of the Select Committee's discussion assumes a knowledge of the Smith Committee Report. Of greatest importance however is the fact that the Smith Committee Report remains the only comprehensive primary research on taxation in Ontario and for that reason will continue to provide the background material for assessing the implications of the recommended policies of the Select Committee.

There are four stages to the Ontario government's program to modernize taxes.

The first and longest stage was the Report of the Smith Committee itself. The second step terminates with the Select Committee's Report. In the third stage, the government will prepare its White Paper on taxation in Ontario. Finally, proposed legislation will be debated in the Legislature.

### **ECC:** The Fifth Review

The fifth annual review of the Economic Council of Canada makes an urgent plea for the equitable sharing of rising incomes and the eradication of poverty in Canada.

A 37-page chapter devoted to the problem of poverty begins: Poverty in Canada is real. Its numbers are not in the thousands but the millions. There is more of it than our society can tolerate, more than our economy can afford and far more than existing measures and efforts can cope with. The Council estimates that one Canadian in five suffers from poverty and insists that the elimination of poverty be made a major national goal.

The ECC report, released in September, makes a second strong recommendation: use science and technology as tools for the pursuit of political, economic and social goals. It says, "No task is more important for improving Canada's innovative performance than to strengthen the capabilities of Canadian management to understand and manage technological change and the innovative process." (Innovation is described as the diffusion of existing technology.)

This is the first time the Council has so carefully described the problems of poverty and technological change. This is also the first time that one particular recommendation holds true in every chapter — that is, the need for better information, research and techniques of analysis.

### **Poverty**

Defining low-income families and individuals as those using 70 per cent or more of their incomes for food, clothing and shelter, the Council estimates that in 1961 some 916,000 non-farm families and 416,000 individuals were living below these levels. The total number of persons involved was 4.2 million. Of these, 83 per cent lived elsewhere than in the Atlantic Provinces; 53 per cent lived in Ontario and the Western Provinces. The condition of Indians, Eskimos and Metis is particularly serious, but poverty is by no means confined to these groups.

"There now are some important gaps in the information and analysis required to conduct a truly comprehensive attack on poverty in Canada," the Council says. Filling these gaps by extensive research is essential.

Near-term measures should immedi be effected to fight poverty. These include: government review and clarification of existing social policies; exploitation of the antipoverty potential of the Canada Assistance Plan; and setting up a Senate Committee to enquire into the problem. A longer-term strategy proposed by the Council is that the advantages and disadvantages of new proposals such as a negative income tax and a minimum income guarantee be thoroughly examined. "To be consistent with our proposed emphasis on helping those most in need, this would involve the establishment of acceptable minimum standards of living for families and individuals in Canada."

Along with welfare and related social policies the Council would study regional and other economic development programs affecting rates of growth in the economy. Regional balance, like the elimination of poverty, is part of the Council's goal of achieving an equitable distribution of rising incomes.

Federal economic policies with regional implications have had an inconsistent imponent the lagging regions, the Council says. There has been no significant narrowing of regional income disparities. The Council suggests that regional development guidelines to be followed should include: improving the utilization of manpower resources; raising the productivity level within each region; and assuring the expansion of growth-related public services.

# Science Policy

The wave of technology following the Second World War has created the need for a science policy — a policy that can systematically organize and apply existing knowledge to achieve practical ends. To make this policy work, Canada must first strengthen university business education. U.S. universities have been graduating four times as many business and commerce students (per 1,000 of population) as Canada at the B.A. level. At the graduate level the ratio is 7 to 1.

Canada's total outlay in Research and Development will be \$1 billion in 1 which is smaller than that of many o advanced, industrialized countries. However,

<sup>&</sup>lt;sup>1</sup>Note that business properties are subject to the additional graduated business occupancy tax.

R & D by itself may add nothing to economic growth. It is the innovation process — which brings new products, processes and services into use — that contributes to growth. Thus role of innovation should be recognized science policy. The environment for innovation is created by information exchange between technologically oriented universities and industry, manpower retraining and by speedily and effectively transferring technological knowledge throughout the economy.

The Council says Canada now requires a coherent strategy to co-ordinate and blend the scientific, technological and innovative capabilities of government, the scientific community, business and the universities. The Council itself is now examining the training and development practices of Canadian management and factors affecting management performance.

Canada's technological efforts in industry should be strengthened but only in fields where Canada has a competitive advantage. Canada should support the resource industries and should seize opportunities arising out of world demands for technological products especially those which happen to suit Canadian industrial capabilities.

The Council also stresses efforts in social sciences. It repeats a plea made in the fourth review to apply first-class scientific minds to resolve the problems of rapid urbanization. Much more could be done in transportation, housing, air and water pollution, noise and

recreation to improve the human environment.

Closely related to the need to develop a science policy is the need to understand the causes and consequences of the changing structure of the Canadian economy. Of the total employment increase of 2.5 million in Canada from 1946 to 1966, some 2.1 million of the new jobs were in the service industries. (Today about 60 per cent of the labour force is in the service industries.) Since most jobs in service industries do not face much international or domestic competition, it is difficult to measure efficiency. Improved information on output and productivity in the service industries would increase knowledge of productivity performance and help in formulating policies for individual industries.

# Economic Performance

Canada's performance in relation to goals set for the medium-term future fell behind last year. In contrast with the 1961-1966 period, the expansion of employment opportunities has not been rapid enough. Unusually high rates of increase in prices and costs, manufacturing wages and interest rates have not been accompanied by equal increases in productivity. The consumer price index went up 4 per cent in both 1966 and 1967. This is inconsistent with the Council's goal of price stability, and higher than price and cost increases in the United States. Business investment has declined since 1966; this must be expanded. Over the medium-term

future, Canada needs a growth rate somewhat slower than in 1961-66 but higher than it has been in 1966-67.

Performance in comparison with other industrially advanced countries was average in the 1950-62 period, the Council says, with two-thirds of real income gains generated from increased labour and capital inputs and a third from factor productivity. Although increases in labour and capital will continue to be important, the quality of inputs must be improved in future through investment and education. Substantial improvements can also be made in expanding international markets.

In agricultural labour productivity, Canada has not kept up with the U.S. although labour productivity has tripled in the last two decades. Average farm incomes still trail behind average non-farm incomes. This is partly because of a 30 per cent higher machinery input per farm worker in the U.S. and because of more sophisticated crop and livestock yield technology. Between 1947 and 1965 higher yields accounted for 170 per cent of the expansion in U.S. crop production but the comparable figure in Canada was only 70 per cent.

The Council recommends that research funds be increased to improve Canada's low ranking in wheat yield per acre and livestock production. Improved yield technology must, however, be accompanied by increased mechanization, increased average farm size, expanded markets and better market organization.

# The Pattern of Consumer Expenditures at Provincial and Regional Level

R. H. Frank and I. M. Rash **Department of Treasury and Economics** 

### Introduction

While data on consumption expenditures at national level are published on an annual as well as on a quarterly basis by the Dominion Bureau of Statistics, comparable statistics for the provinces are not available. As consumer expenditures constitute a major economic variable of strategic importance in the development of an Econometric Model and the design of an Input-Output table for the Ontario economy, the statistical decomposition of the national time series represents a first step toward the development of an adequate data base for quantitative economic analysis.

Annual series on consumer expenditures by province were developed for the period 1957-1967. The time series for Ontario was further disaggregated on a spatial and temporal basis to obtain data for the 10 economic regions and a quarterly provincial series. In view of the importance of consumer spending as an economic indicator, a forecasting equation was designed for the prediction of consumer expenditures in Ontario.

The first section of this study describes in detail the estimation procedure for the derivation of annual data on consumer expenditures for the provinces and Ontario's ten economic regions. The statistical series for the provinces and for the regions of Ontario are analysed on a comparative basis to evaluate inter-provincial and inter-regional differences in the pattern of consumer spend-

An independent estimation procedure, designed to provide control estimates for the series developed in Section I is examined in the second part of the report. The results of the test comparison indicate that the estimated series are statistically unbiased and consistent.

The final section summarizes the analytical techniques utilized in the temporal disaggregation of the annual series for Ontario into quarterly data. An auto-regressive equation designed for short-to-medium term forecasting is presented and supplemented with specific forecasts of consumption expenditures during the first three quarters of 1968.

# ESTIMATION AND ANALYSIS OF TIME SERIES AT PROVINCIAL AND REGIONAL LEVEL

The development of reliable statistical time series on consumer expenditures in Ontario and the constituent economic regions is of major significance in view of the strategic importance of this variable both for structural analysis and policy planning. Reflecting the increasing need for detailed regional data, consumer expenditures at subprovincial level were estimated through application of advanced statistical decomposition techniques.

The estimation of consumer expenditures by province is, conceptually, a problem of spatial disaggregation of the national time series. The process of disaggregation is facilitated by the availability of series on economic key variables such as personal disposable income and retail sales at provincial level. A substantial amount of available collateral information was utilized to ensure a high degree of reliability of the statistical estimates.

The technique adopted for the decomposition of the national time series was selected under the statistical criterion of optimal consistency and efficiency after extensive testing of alternative estimators. In addition, the estimation procedure was designed to minimize the time lag between the publication of input data and the availability of output series to secure maximum timeliness.

The estimates presented form the basis of a comparative analysis of differential growth patterns of consumer expenditures at provincial and sub-provincial level.

Preliminary to the exposition of the analysis, the notation adopted in this study is introduced:

C<sub>n</sub>: Consumer expenditures on goods and services at national level

N<sub>n</sub>: Population of Canada

Y<sub>n</sub>: Personal disposable income, Canada

C<sub>pi</sub>: Consumer expenditures on goods and services in province i

N<sub>pi</sub>: Population of province i

Y<sub>pi</sub>: Personal disposable income for province i

For the economic regions of Ontario:

C<sub>ri</sub>: Consumer expenditures on goods and services in region j

 $N_{rj}$ : Population of region j

Y<sub>ri</sub>: Personal disposable income for region j

As economic theory, supported by detailed empirical evidence, suggests that personal disposable income constitutes the major determinant of consumer expenditures, a linear equation relating these variables on a per capita basis was specified:

$$C_{pi}/N_{pi} = a_o + a_l \; Y_{pi}/N_{pi}$$

which can be transformed to:

$$C_{pi} = a_0 N_{pi} + a_I Y_{pi} \qquad \dots \qquad (1)$$

Summing both sides of equation (1) over the index i yields:

$$\sum_{i} C_{pi} = a_{o} \sum_{i} N_{pi} + a_{I} \sum_{i} Y_{pi}$$
ie.  $C_{n} = a_{o} N_{n} + a_{I} Y_{n}$  . . . (2)

using the identities

$$\sum_i C_{pi} = C_n, \ \sum_i N_{pi} = N_n.$$
 and 
$$\sum_i Y_{pi} = Y_n.$$

A similar rationale underlies the derivation of estimating equations for consumer expenditures in the ten economic regions of Ontario:

$$C_{rj}/N_{rj} = b_o + b_I Y_{rj}/N_{rj}$$
  $C_{rj} = b_o N_{rj} + b_I Y_{rj}$  . . . (3)

Summing over the index j:

$$\sum_{j} C_{rj} = b_o \sum_{j} N_{rj} + b_l \sum_{j} Y_{rj}$$
ie.  $C_p = b_o N_p + b_l Y_p$  . . . (4)

$$\sum_{j}^{as} C_{rj} = C_{p}; \sum_{j}^{} N_{rj} = N_{p}; \sum_{j}^{} Y_{rj} = Y_{p}$$

Equations (2) and (4) were statistically estimated on the basis of data for the observational period 1957-1966 and the resultant parametric information was utilized in conjunction with equations (1) and (3) to arrive at time series on consumer expenditures by province and region.

The numerical estimates of the parameters are presented in equations (2a) and (4a):

$$C_{n} = 0.1011 N_{n} + 0.8613 Y_{n}$$

$$(0.0011) \quad (0.0005)$$

$$R^{2} = 0.998 \dots (2a)$$

$$C_{p} = 0.09723 N_{p} + 0.86337 Y_{p}$$

$$(0.00113) \quad (0.00055)$$

$$R^{2} = 0.999 \dots (4a)$$

The parameters of both equations are statistically highly significant as reflected in their extremely small variances, while the high values of the respective R<sup>2</sup> statistics are indicative of the explanatory power of the selected independent variables. The historical time series derived by simultaneous application of the equation system (1, 2a, 3 4a) are presented in Tables 1 and 2, w percentage distributions based on these data appear in Tables 3 and 4.

Table 1 — Consumption Expenditure by Province, Canada, 1957 to 1967	Table 1	- Consumption	Expenditure b	v Province	Canada	1957 to	1967
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	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	19671
	\$ Billion										
ewfoundland	0.310	0.327	0.344	0.368	0.396	0.413	0.443	0.473	0.524	0.578	0.627
nce Edward Island	0.072	0.082	0.087	0.095	0.093	0.102	0.107	0.119	0.133	0.133	0.151
Nova Scotia	0.657	0.691	0.728	0.757	0.791	0.833	0.871	0.915	0.986	1.035	1.126
New Brunswick	0.474	0.492	0.516	0.554	0.575	0.607	0.634	0.688	0.751	0.802	0.873
Quebec	5.031	5.377	5.583	5.871	6.293	6.709	7.063	7.573	8.260	8.894	9.730
Ontario	7.922	8.472	8.823	9.152	9.512	10.109	10.780	11.417	12.452	13.555	14.578
Manitoba	0.995	1.105	1.143	1.198	1.190	1.341	1.357	1.448	1.537	1.636	1.779
Saskatchewan	0.906	0.983	1.034	1.186	0.989	1.361	1.494	1.349	1.578	1.786	1.772
Alberta	1.436	1.609	1.665	1.729	1.825	1.995	2.099	2.176	2.412	2.718	2.907
British Columbia <sup>2</sup>	2.173	2.267	2.374	2.444	2.530	2.673	2.852	3.046	3.411	3.767	3.991
Canada (computed)	19.976	21.405	22.297	23.354	24.194	26.143	27.700	29.204	32.044	34.904	37.534
Canada (DBS)	20.072	21.245	22.591	23.540	24.466	25.926	27.487	29.666	32.063	34.840	37.714

Table 2 — Consumption Expenditure by Region, Ontario, 1957 to 1967

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	19671
	\$ Billion										
Metropolitan	3.184	3.486	3.572	3.747	3.977	4.213	4.520	4.800	5.230	5.761	6.224
Niagara	1.086	1.106	1.171	1.186	1.223	1.310	1.406	1.501	1.637	1.762	1.892
Eastern Ontario	0.836	0.893	0.941	0.990	1.047	1.102	1.164	1.222	1.320	1.456	1.566
Northeastern Ontario	0.604	0.615	0.651	0.664	0.664	0.695	0.700	0.718	0.758	0.795	0.828
ake St. Clair	0.536	0.557	0.589	0.609	0.596	0.642	0.695	0.746	0.861	0.902	0.973
Lake Erie	0.412	0.480	0.509	0.527	0.547	0.571	0.629	0.655	0.714	0.793	0.857
Mid-Western Ontario	0.417	0.438	0.465	0.489	0.499	0.550	0.597	0.643	0.701	0.776	0.842
Lake Ontario	0.318	0.340	0.354	0.358	0.363	0.394	0.419	0.432	0.470	0.506	0.540
Northwestern Ontario	0.278	0.281	0.285	0.295	0.298	0.306	0.305	0.324	0.352	0.359	0.375
Georgian Bay	0.251	0.276	0.286	0.287	0.298	0.326	0.345	0.376	0.409	0.446	0.481
Province	7.922	8.472	8.823	9.152	9.512	10.109	10.780	11.417	12.452	13.555	14.578

<sup>&</sup>lt;sup>1</sup>Preliminary estimates.

Table 3 - Percentage Distribution of Consumption Expenditure by Province, Canada, 1957 to 1967

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Newfoundland	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7
Prince Edward Island	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Nova Scotia	3.3	3.2	3.3	3.2	3.3	3.2	3.1	3.1	3.1	3.0	3.0
New Brunswick	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.3
Quebec	25.2	25.1	25.0	25.1	26.0	25.7	25.5	25.9	25.8	25.5	25.9
Ontario	39.6	39.6	39.6	39.2	39.3	38.7	38.9	39.1	38.9	38.8	38.8
Manitoba	5.0	5.2	5.1	5.1	4.9	5.1	4.9	5.0	4.8	4.7	4.8
Saskatchewan	4.5	4.6	4.6	5.1	4.1	5.2	5.4	4.6	4.9	5.1	4.7
Alberta	7.2	7.5	7.5	7.4	7.5	7.6	7.6	7.5	7.5	7.8	7.8
Pritish Columbia	. 10.9	10.6	10.7	10.5	10.5	10.2	10.3	10.4	10.7	10.8	10.6
.nada (computed)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>&</sup>lt;sup>1</sup>Preliminary estimates. <sup>2</sup>Includes Yukon and the Northwest Territories.

Table 4 — Percentage	Distribution of	of Consumption	n Expenditure b	y Region.	Ontario,	1957 to 1967

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Metropolitan	40.2	41.1	40.5	40.9	41.8	41.7	41.9	42.1	42.0	42.5	42.7
Niagara	13.7	13.0	13.3	13.0	12.9	13.0	13.1	13.2	13.2	13.0	120
Eastern Ontario	10.5	10.5	10.6	10.8	11.0	10.9	10.8	10.7	10.6	10.7	1
Northeastern Ontario	7.6	7.3	7.4	7.3	7.0	6.9	6.5	6.3	6.1	5.9	5.1
Lake St. Clair	6.8	6.6	6.7	6.7	6.3	6.4	6.5	6.5	6.9	6.7	6.6
Lake Erie	5.2	5.7	5.8	5.8	5.8	5.6	5.8	5.7	5.7	5.8	5.9
Mid-Western Ontario	5.3	5.2	5.3	5.3	5.2	5.4	5.5	5.6	5.6	5.7	5.8
Lake Ontario	4.0	4.0	4.0	3.9	3.8	3.9	3.9	3.8	3.8	3.7	3.7
Northwestern Ontario	3.5	3.3	3.2	3.2	3.1	3.0	2.8	2.8	2.8	2.7	2.6
Georgian Bay	3.2	3.3	3.2	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.3
Province	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Estimates of consumer expenditure by province for 1967 and by region for 1966 and 1967 are preliminary as data on personal disposable income at provincial and regional level are not yet available. In order to eliminate the recurrent time-lag in the publication of income data, a set of equations was developed formalizing the procedure for arriving at preliminary estimates.

Equations of the form

$$C_i = a_i + b_i C_n + \epsilon_i^{\ 1}$$
 (i = 1, 2,. . . 10)

were estimated for each of the provinces on the basis of data for the period 1957-1966 where  $C_i$  and  $C_n$  denote consumer expenditure on goods and services in province i and at national level respectively. Reflecting the wider fluctuations of consumption expenditures in Saskatchewan due to the pronounced volatility of farm income, the relevant equation for Saskatchewan was specified as

$$C_8 = a_8 + b_8 C_n + cF_n + \epsilon_8$$

with  $C_8$  and  $C_n$  representing consumer expenditure in Saskatchewan and in Canada respectively while  $F_n$  denotes the net income of farm operators from farm production in Canada.

Estimates of the parameters for the generalized provincial equations are shown in the following synopsis.

Similarly, for each of the ten economic regions of Ontario equations of the generalized form

$$C_j = a_j + b_j C_p + \epsilon_j$$
  $(j = 1, 2, ... 10)$ 

were estimated for the observation period 1957-1965 with the symbols  $C_i$  and  $C_p$  representing consumer expenditure in region j and in Ontario respectively.

Numerical values of the parameters of the regional equations are also presented in summary form.

Newfoundland:	$C_1 = -0.05829 + 0.01817 C_n $ $(0.00002)$	$R^2 = 0.996$
Prince Edward Island:	$C_2 = -0.00927 + 0.00426 C_n $ $(0.00005)$	$R^2 = 0.971$
Nova Scotia:	$C_3 = 0.14503 + 0.02602 C_n $ $(0.00003)$	$R^2 = 0.994$
New Brunswick:	$C_4 = 0.01058 + 0.02286 C_n $ $(0.00001)$	$R^2 = 0.997$
Quebec:	$C_5 = -0.29999 + 0.26596 C_n $ $(0.00003)$	$R^2 = 0.996$
Ontario:	$C_6 = 0.31499 + 0.37818 C_n $ $(0.00003)$	$R^2 = 0.998$
Manitoba:	$C_7 = 0.19561 + 0.04198 C_n $ $(0.00000)$	$R^2 = 0.980$
Saskatchewan:	$C_8 = -0.10571 + 0.02425 C_n + 0.53931 F_n$ (0.00843) (0.12078)	$R^2 = 0.969$
Alberta:	$C_9 = -0.17198 + 0.08165 C_n $ $(0.00001)$	$R^2 = 0.989$
British Columbia:	$C_{10} = -0.05728 + 0.10733 C_n $ $(0.00002)$	$R^2 = 0.988$

Metropolitan:	$C_1 = -0.38240 + .045319 C_p$ $(0.01608)$	$R^2 = 0.998$
Niagara:	$C_2 = 0.04241 + 0.12686 C_p $ $(0.00003)$	$R^2 = 0.988$
Eastern Ontario:	$C_3 = -0.00272 + 0.10762 C_p$ $(0.00001)$	$R^2 = 0.991$
Northeastern Ontario:	$C_4 = 0.35353 + 0.03257 C_p$ $(0.00001)$	$R^2 = 0.961$
Lake St. Clair:	$C_5 = -0.02834 + 0.06866 C_p$ $(0.00003)$	$R^2 = 0.958$
Lake Erie:	$C_6 = -0.05644 + 0.06264 C_p$ $(0.00001)$	$R^2 = 0.980$
Mid-Western Ontario:	$C_7 = -0.11076 + 0.06539 C_p$ $(0.00000)$	$R^2 = 0.995$
Lake Ontario:	$C_8 = 0.05629 + 0.03318 C_p$ $(0.00000)$	$R^2 = 0.992$
Northwestern Ontario:	$C_9 = 0.15184 + 0.01531 C_p$ $(0.00000)$	$R^2 = 0.937$
Georgian Bay:	$C_{10} = -0.02393 + 0.03463 C_{p}$	$R^2 = 0.9$

(0.00000)

<sup>&</sup>lt;sup>1</sup>Represents the stochastic term in the regression equation.

The extremely small variances of the parameters in all the equations reflect the high degree of statistical reliability and significance while the values of the coefficients of rmination imply minimal residual variation of the derived estimates.

The temporal characteristics of the provincial and regional series were analysed on the basis of their respective percentage distribution by regressing the relative shares on the time variate and applying the standard statistical tests of significance to the resultant parameters and coefficients of determination. Examination of the provincial distribution, shown in Table 3, reveals considerable temporal stability in the relative shares of the provinces, whereas, reflecting wide variations in regional income growth and other differential factors, the distribution pattern for the ten economic regions of Ontario, shown in Table 4, is characterized by a significant decline in the relative share of some regions (Northwestern and Northeastern) accompanied by offsetting increases in more dynamic areas.

As consumer expenditures per capita constitute an important indicator of the stage of development reached by an economic unit, provincial and regional series on consumer expenditures per capita were computed and presented in Tables A-1 and A-2 of the Appendix. While it is recognized that constant dollar values of the variable would be more appropriate for comparative analyses, the unavailability of suitable price indices has precluded deflation of the series which are shown in current dollars.

Annual rates of growth of consumer expenditures per capita by province and by region are shown in Table 5. Over the period 1957-1967, the growth rates for all provinces with the exception of Ontario and British Columbia exceeded the national aver-

age. Among the economic regions of Ontario, the Niagara, Metropolitan, Northwestern and Northeastern regions experienced rates of growth lower than the provincial rate during the same period.

As the structural dependence of consumer expenditures on personal disposable income is an important tool in the analysis of the macro-dynamic behaviour of economic systems, consumption functions for the provinces and for the regions were statistically estimated.

On the basis of the series developed in this study equations of the form:

$$C_{pi} = a_i + b_i Y_{pi} + \epsilon_i \qquad \dots \qquad (5)$$

$$C_{ri} = a_i + b_i Y_{ri} + \epsilon_i \qquad \dots \qquad (6)$$

were estimated for the provinces and Ontario's ten economic regions and the numerical values of the parameters  $a_i$ ,  $b_i$  are presented in Tables A-3 and A-4 of the Appendix.

Although the simultaneous equations approach is, on theoretical grounds, preferable to the single equation estimation procedure actually used, it is feasible only in the context of a full scale econometric model currently being designed and tested by the Department's Econometric Research Unit.

While a more detailed analysis of the statistical time series developed in this paper is beyond the scope of this study, the availability of these data will in the future greatly facilitate econometric studies and the formulation of economic policies at provincial and regional level.

# THE IMPACT OF THE INCOME DISTRIBUTION ON THE LEVEL OF CONSUMPTION EXPENDITURES

While the estimates of personal consumption expenditures presented in Section I are derived primarily from the aggregate level of

personal disposable income with income distribution represented only implicitly through inclusion of a demographic variable, an independent estimation procedure based on detailed income distribution data for nine income classes at national and provincial level was developed. The purpose of the analysis was to test the frequently advanced hypothesis that, in addition to the aggregate level of personal disposable income, the varying configuration of the income distribution has a pronounced impact on consumption expenditures.

Underlying this hypothesis is the basic assumption that low income recipients consume a greater proportion of disposable income than high income earners with the result that the aggregate average propensity to consume is expected to be highly sensitive to the actual distribution of disposable income. While the marked degree of variation in the propensity to consume by income class has been demonstrated conclusively by numerous cross-sectional studies, the present analysis attempts to determine the precise quantitative impact on the overall propensity.

For the purpose of this study, income recipients were classified into the following income classes adopted from official Taxation Statistics:

- 1. up to \$ 1,000
- 2. \$ 1,000 \$ 2,000
- 3. \$ 2,000 \$ 3,000
- 4. \$ 3,000 \$ 4,000
- 5. \$ 4,000 \$ 5,000
- 6. \$ 5,000 \$ 6,000
- 7. \$ 6,000 \$10,000 8. \$10,000 - \$20,000
- 9. \$20,000 and over

Using the following notation:

- C<sub>i</sub>: Consumption expenditure during year t by income recipients in group i.
- $Y_i$ : Disposable income accruing to income recipients in group i during year t. (i = 1, 2, 3, ... 9)
- $b_i = C_i/Y_i$  represents the average propensity to consume (APC) for group i in year t.

As 
$$C = \sum_{i=1}^{9} C_i = \sum_{i=1}^{9} b_i Y_i$$
  
 $= \sum_{i=1}^{9} b_i (Y_i/Y) Y$   
 $= \sum_{i=1}^{9} (b_i w_i) Y$  . . . . (7)

Table 5 — Annual Rates of Growth of Consumption Expenditure per Capita

Provinces		<b>Ontario Economic Regions</b>	
	Per Cent		Per Cent
Prince Edward Island	6.69	Georgian Bay	5.90
Saskatchewan	6.03	Lake Erie	5.78
Newfoundland	5.54	Lake St. Clair	4.77
New Brunswick	5.25	Mid-Western Ontario	4.69
Manitoba	4.82	Lake Ontario	4.34
Nova Scotia	4.72	Eastern Ontario	4.28
Alberta	4.68	Niagara	3.64
Chebec	4.62	Metropolitan	3.03
rio	3.75	Northwestern Ontario	1.91
British Columbia	3.62	Northeastern Ontario	1.75
Canada	4.34	Province	3.75

Where C equals total consumption expenditure for Canada in year t, while Y represents total disposable income for Canada in year t and  $w_i = Y_i/Y$  (i = 1, 2, ... 9) is the proportion of total personal disposable income accruing to income recipients in group i.

From equation (7) the following relationship is derived:

$$C/Y = B = \sum_{i=1}^{9} b_i w_i$$
 ... (8)

implying that the overall propensity to consume, B, can be conceived as a weighted average of the APC's for the nine income groups under consideration. The weights w<sub>i</sub> necessarily sum to unity:

$$\sum_{i=1}^{9} w_i = \sum_{i=1}^{9} Y_i / Y = Y / Y = 1$$

For a given year, B can readily be calculated as C/Y, since both C and Y are available from the National Accounts. The weights will can also be derived from "Taxation Sta-

tistics" published by the Department of National Revenue. Thus equation (8) is to be solved for the b<sub>i</sub> in terms of B and w<sub>i</sub> which are known constants.

As this equation cannot be solved for b<sub>i</sub> without introducing additional mathematical restrictions, the following plausible constraints were imposed:

$$1.0 > b_1 > b_2 > b_3 > \ldots > b_9 > 0$$

These inequalities give precise mathematical expression to the basic assumption that the APC for low income groups would be greater than the APC for higher income classes.

To facilitate the solution of the equation system, different experimental values of the inter-class propensity differentials  $(b_{i+1} - b_i)$  were used.

Based on experimental conditions satisfing the statistical criterion of maximum lihood, three solution vectors were derived and are exhibited in Table 6. The income distribution weights  $(w_i)$  for Canada and for the provinces (1965) are shown in Table 7. The values of  $b_i$  obtained under all three sets of conditions conform to a priori requirements, with the exception of  $b_8 = 0.683$  under Set 3. This value is somewhat smaller than could be reasonably expected.

Table 6 – Values of  $b_i$  under Three Alternative Sets of Constraints on  $(b_{i+1} - b_i)$ 

Income Range	Set 1	Set 2	Set 3
0 - 1,000	0.990,811	0.956,061	0.999,412
1,000- 2,000	0.983,666	0.952,916	0.998,881
2,000- 3,000	0.975,627	0.949,968	0.998,349
3,000- 4,000	0.964,909	0.994,070	0.993,564
4,000- 5,000	0.953,297	0.937,780	0.984,844
5,000- 6,000	0.930,967	0.927,557	0.949,644
6,000-10,000	0.892,559	0.914,387	0.907,001
10,000-20,000	0.819,317	0.855,413	0.683,045
20,000 +	0.746,968	0.763,020	0.657,310

Table 7 — Income Distributions — Canada and the Provinces, 1965

			Prince Edward			_
Income Range	Canada	Newfoundland	Island	Nova Scotia	New Brunswick	Quebec
Under 1,000	0.013,842	0.043,443	0.037,569	0.029,232	0.035,196	0.019,818
1,000- 2,000	0.055,449	0.082,902	0.092,837	0.075,950	0.080,469	0.051,591
2,000- 3,000	0.098,982	0.128,186	0.183,518	0.139,675	0.142,534	0.102,548
3,000- 4,000	0.128,454	0.170,928	0.167,407	0.166,401	0.172,570	0.141,785
4,000- 5,000	0.146,569	0.171,573	0.139,350	0.170,487	0.169,458	0.157,892
5,000- 6,000	0.142,868	0.123,036	0.102,917	0.127,443	0.128,749	0.136,765
6,000-10,000	0.264,646	0.185,598	0.163,459	0.187,566	0.168,119	0.236,327
10,000-20,000	0.099,397	0.066,135	0.076,157	0.068,753	0.072,591	0.092,606
20,000 and Over	0.049,788	0.028,194	0.036,782	0.034,490	0.030,376	0.060,663

Income Range	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories
Under 1,000	0.018,077	0.025,290	0.023,858	0.028,052	0.018,492	0.021,340
1,000- 2,000	0.045,000	0.064,181	0.062,736	0.058,327	0.045,088	0.039,457
2,000- 3,000	0.087,161	0.118,184	0.121,928	0.108,822	0.082,925	0.065,010
3,000- 4,000	0.115,763	0.148,924	0.142,434	0.129,089	0.099,895	0.086,035
4,000- 5,000	0.141,143	0.156,231	0.146,974	0.140,638	0.129,505	0.104,510
5,000- 6,000	0.148,761	0.145,131	0.137,324	0.136,227	0.150,029	0.135,920
6,000-10,000	0.285,020	0.224,023	0.234,810	0.257,071	0.331,509	0.424,656
10,000-20,000	0.106,931	0.079,957	0.099,608	0.104,334	0.101,458	0.113,210
20,000 and Over	0.052,139	0.038,076	0.030,324	0.037,435	0.041,094	0.009,8

Source: Taxation Statistics, 1967 edition Department of National Revenue.

From the values of b<sub>i</sub> listed in Table 6 and using the weights w<sub>i</sub> presented in Table 7, the average propensities to consume (APC's) for the provinces were computed.

is for Ontario,

$$APC_1 = \sum_{i=1}^{9} b_i w_i$$

where b<sub>1</sub> are the values listed under Set 1 in Table 6 and w<sub>1</sub> are the income distribution weights for Ontario given in Table 7. APC<sub>2</sub>, APC<sub>3</sub> can be derived by similar calculations using values of b<sub>1</sub> listed in Table 6 under Set 2 and Set 3 respectively.

APC's for the other provinces were computed similarly and are presented in Table 8.

On the basis of these results, a precise measure can be assigned to the error which would arise if the income distribution factor were ignored in the estimation of the APC's for the provinces. Denoting by APC\* the average propensity to consume unadjusted for the configuration of the income distribution, the conventional formula:

Percentage error = 
$$\frac{APC^* - APC}{APC} \times 100$$

was adopted as an appropriate measure of the error.

Table 9 summarizes the percentage errors province for alternative sets of b<sub>1</sub>.

**Table 9 — Percentage Errors** Set 1 Set 2 Set 3 Newfoundland -1.85-1.09-2.71Prince Edward Island -1.84-0.99-2.44Nova Scotia -1.59-2.36-0.91New Brunswick -1.81-1.04-2.57Quebec -0.090.05 -0.120.38 Ontario 0.21 0.57 Manitoba -0.95-0.57-1.45Saskatchewan -0.78-0.52-1.03Alberta -0.36-0.26-0.41British Columbia 0.39 0.08 0.41 Northwest **Territories** 0.51 -0.150.47

Examination of the table reveals that the deviations are statistically quite small ranging from 2.71 percent to 0.05 percent with the average error amounting to only 0.94 percent. For Ontario in particular, the percentage errors are virtually negligible, varyfrom 0.21 percent to 0.57 percent.

For comparative purposes estimates of consumption expenditures by province for

Table 8 — Average Propensities to Consume

	Set 1	Set 2	Set 3
Newfoundland	0.933,584	0.926,482	0.941,881
Prince Edward Island	0.933,539	0.925,576	0.939,246
Nova Scotia	0.931,177	0.924,824	0.938,533
New Brunswick	0.933,224	0.925,982	0.940,497
Quebec	0.917,201	0.915,900	0.917,441
Ontario	0.912,905	0.914,467	0.911,143
Manitoba	0.925,140	0.921,620	0.929,852
Saskatchewan	0.923,534	0.921,138	0.925,845
Alberta	0.919,682	0.918,763	0.920,102
British Columbia	0.912,805	0.915,604	0.912,563
Northwest Territories	0.911,709	0.917,723	0.912,093
Canada	0.916,347	0.916,347	0.916,347

1965, based on the propensities presented in Table 8, were computed and are shown in tabular form in the Appendix. Table 10 summarizes the analysis of percentage differences between these estimates and the comparable data developed in Section I.

Table 10 — Percentage Differences<sup>1</sup>

	Set 1	Set 2	Set 3
Newfoundland	-2.01	-2.76	-1.14
Prince Edward			
Island	-0.33	-1.18	0.28
Nova Scotia	-0.37	-1.05	0.42
New Brunswick	-0.72	-1.49	0.06
Quebec	-0.89	-1.03	-0.86
Ontario	0.19	0.36	0.00
Manitoba	0.63	0.25	1.15
Saskatchewan	0.66	0.40	0.91
Alberta	0.28	0.18	0.32
British Columbia			
& Northwest			
Territories	0.21	0.52	0.19

 $\frac{1}{C_{\mathfrak{g}}-C_{\mathfrak{g}}}\times 100$ 

 $C_1$ ,  $C_2$ : Estimates derived in Sections 1 and 2 respectively.

Inspection of the table shows that the overall percentage differences vary from zero to 2.76 percent averaging 0.69 percent while the estimates for Ontario differ by less than 0.50 percent.

On the basis of this analysis it can be concluded that estimation procedures which do not incorporate explicitly detailed information on the configuration of the income distribution yield estimates virtually identical with those generated by methods utilizing income distribution data.

# ESTIMATION AND FORECASTING OF QUARTERLY CONSUMER EXPENDITURES IN ONTARIO

The Dominion Bureau of Statistics publishes quarterly estimates of consumer expenditures on goods and services. The procedure used at DBS to obtain quarterly series on consumer expenditures is described in *National Accounts, Income and Expenditure by Quarters, 1947-1961*, catalogue No. 13-519. Consumer expenditures on goods and services are conceived as the sum of three components: (1) consumer expenditures on commodities, (2) consumer expenditures on services, and (3) net personal expenditure abroad.

For the derivation of historical quarterly series at national level, DBS allocates these components on the basis of three different allocators. Thus consumer expenditures on commodities, for example, are allocated on the basis of adjusted retail sales data, while the remaining components are determined similarly through application of collateral time series. Since in the case of Ontario the elaborate allocation procedures followed by DBS did not prove feasible due to lack of sufficiently detailed statistics, alternative estimation procedures were explored.

Before describing in detail the methodology underlying the estimation procedures used, a notational framework is introduced to facilitate exposition:

 $C_{jt}$ : consumer expenditures on goods and services at national level for quarter j of year t. (j = 1, 2, 3, 4)

C<sub>t</sub>: consumer expenditures on goods and services at national level for year t, while the corresponding quantities for Ontario are denoted by C\*<sub>jt</sub> and C\*<sub>j</sub> respectively.

R<sub>jt</sub>, R\*<sub>jt</sub>: retail sales in Canada and Ontario respectively for the j<sup>th</sup> quarter of year t.

R<sub>t</sub>, R\*<sub>t</sub>: retail sales in Canada and Ontario for year t.

In addition, the following coefficients relating quarterly to annual data are defined:

$$\begin{split} &C_{jt}/C_t = c_{jt}\\ &C^*_{jt}/C^*_t = c^*_{jt}\\ &R_{jt}/R_t = r_{jt}\\ &R^*_{jt}/R^*_t = r^*_{jt} \end{split}$$

As annual estimates of consumer expenditures in Ontario ( $C^*_t$ ) have been derived in Section I the problem is reduced to the decomposition of  $C^*_t$  into a quarterly series  $C^*_{it}$ .

The decomposition can be effected by applying the national coefficients  $c_{jt}$  to the Ontario annual consumption data  $C^*_t$  to obtain quarterly estimates for the province on the basis of the algebraic expression:

$$C^*_{jt} = c_{jt} C^*_{t}$$

$$\sum_{j} C^*_{jt} = \sum_{j} c_{jt} C^*_{t}$$

$$= C^*_{t} \sum_{j} c_{jt} = C^*_{t}$$

However, as this method involves the assumption that the quarterly variation in consumer expenditures in Ontario replicates the national pattern, this hypothesis was subjected to extensive empirical testing.

If, instead of using the method described in National Accounts, Income and Expenditure by Quarters, 1947-1961, the Dominion Bureau of Statistics were to use quarterly retail sales as an allocator for all the components of consumer expenditures, quarterly estimates at national level would be derived from the equation:

$$C_{jt} = r_{jt} C_t \qquad j = 1, 2, 3, 4$$
 
$$\sum_{j=1}^{4} C_{jt} = \sum_{j=1}^{4} r_{jt} C_t$$
 
$$= C_t \sum_{j=1}^{4} r_{jt} = C_t$$

This approach was used to compute national figures on consumer expenditures on a quarterly basis and the resultant estimates were compared with the quarterly series published by DBS for the period 1960-65. The two

sets of data were virtually identical on the basis of the chi-square test while percentage deviations of the computed figures from the published estimates were insignificant, thus implying that quarterly retail sales allocate annual data at national level in substantially the same way as the actual procedure used by the Dominion Bureau of Statistics.

The second stage of the test consisted in comparing the pattern of quarterly variation of retail sales in Ontario with the variation, over quarters, of the national consumer expenditure data. Again, on the basis of the chi-square test and examination of percentage deviations of  $r*_{jt}$  from  $c_{jt}$ , it was established that the hypothesis of equality between  $c*_{jt}$  and  $c_{jt}$  is fully consistent with empirical evidence.

Based on the equivalence of national and provincial parameters confirmed by the preceding tests, the series shown in Table 11 was computed, using the formula:

$$C^*_{jt} = c_{jt} C^*_{t}$$

while the estimates presented in Table 12 were derived from the expression:

$$C^*_{it} = r^*_{it} C^*_{t}$$
 . . . (10)

As is shown in Table 13, the two quarterly series for Ontario do not differ significantly with the actual differences being, in general, less than 4 percent. The close similarity of the two independent sets of estimates is reflective of the symmetry and transitivity of retail sales and consumer expenditures data at national and provincial level.

**Table 11 — Ontario Consumption Expenditure: Quarterly Estimates** 

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total For Year
	\$ Billion		- 110		
1957	1.808022	1.981680	1.966684	2.165597	7.922
1958	1.941638	2.103538	2.087585	2.339220	8.472
1959	2.037901	2.193733	2.169910	2.421428	8.823
1960	2.108373	2.289162	2.247172	2.507272	9.152
1961	2.183023	2.372359	2.351756	2.604851	9.512
1962	2.360168	2.527826	2.454131	2.766853	10.109
1963	2.495472	2.680975	2.630384	2.973156	10.780
1964	2.658927	2.830959	2.787860	3.139229	11.417
1965	2.840251	3.097360	3.038711	3.475652	12.452
1966	3.135469	3.327667	3.328834	3.763030	13.555
1967	3.354332	3.621426	3.565379	4.036562	14.578

Formula Used:  $C^*_{jt} = c_{jt}C^*_{t}$ 

**Table 12 – Ontario Consumption Expenditure: Quarterly Estimates** 

	First	Second	Third	Fourth	Total
Year	Quarter	Quarter	Quarter	Quarter	For Year
	\$ Billion				
1957	1.760403	2.041293	1.984144	2.136143	7.922
1958	1.872905	2.173737	2.068116	2.357215	8.472
1959	1.962579	2.293724	2,152759	2.413928	8.823
1960	2.045755	2.375374	2.216312	2.514530	9.152
1961	2.094694	2.448864	2.349007	2.619424	9.512
1962	2.272402	2.588844	2.367022	2.880711	10.109
1963	2.392146	2.774739	2.544629	3.068462	10.780
1964	2.576577	2.920833	2.716549	3.202925	11.417
1965	2.661241	3.208058	2.945570	3.637104	12.452
1966	3.123248	3.287413	3.239387	3.904952	13.555
1967	3.161227	3.739700	3.511269	4.165503	14.578

Formula Used:  $C^*_{jt} = r^*_{jt} C^*_{t}$ 

Table 13 — Percentage Differences<sup>1</sup>

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	Per Cent	Quarter	Quarter	Quarter
1	2.97	-3.77	1.37	-0.29
1961	4.05	-3.22	0.12	-0.56
1962	3.72	-2.41	3.55	-4.11
1963	4.14	-3.50	3.26	-3:21
1964	3.10	-3.17	2.56	-2.03
1965	6.30	-3.57	3.07	-4.65
1966	0.39	1.21	2.69	-3.77

$$\frac{c_{jt} - r^*_{jt}}{c_{jt}} \times 100$$

With quarterly consumption expenditure data representing a major economic indicator, a collateral forecasting equation was developed to facilitate the timely evaluation of changing trends in the economy. A number of alternative specifications were tested and the auto-regressive relationship (equation 11) was selected on the basis of its statistically optimal properties relevant to short and medium term forecasting. Data for

the observation period 1st quarter 1957 to 4th quarter 1966 were used to estimate the forecasting equation:

$$C_{t} = 0.15555 + 0.44116 C_{t-1} + 0.62554 C_{t-2}$$

$$(0.15567) \quad (0.16069)$$

$$-0.52269 Q_{1t} - 0.23620 Q_{2t}$$

$$(0.09690) \quad (0.06379)$$

$$-0.27305 Q_{3t}$$

$$(0.08968)$$

$$R^{2} = 0.96 \qquad \cdots \qquad (11)$$

where:

C<sub>t</sub>: Consumer expenditures in Ontario during Quarter t.

 $C_{t-1}$ ,  $C_{t-2}$ : Consumer expenditures in Ontario lagged one and two quarters respectively.

 $Q_{1t}$ ,  $Q_{2t}$ ,  $Q_{3t}$ : Quarterly seasonality variables, defined as:

$$Q_{jt} = 1$$
 in the j<sup>th</sup> quarter.  
= 0 in all other quarters.  
(j = 1, 2, 3)

All the coefficients of equation 11 are statistically highly significant while the auto-regressive structure of the equation provides obvious advantages for forecasting purposes by confining the required input data to readily available exogenous variables. Reflecting the specific design for short to medium term forecasting the variance of the forecast increases with the time horizon implying an upper bound of approximately four quarters to the prediction period. Specific forecasts for the first three quarters of 1968 based on equation (11) are presented in the Appendix.

Table A-1 — Consumption	Expenditure po	er Capita by l	Province,	Canada,	1957 to 1967
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	^			•							
	1957 Dollars	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Newfoundland	731	757	780	821	865	879	921	963	1,052	1,145	1 4
Prince Edward Island	727	820	861	922	866	962	1,000	1,112	1,231	1,220	9
Nova Scotia	937	975	1,013	1,041	1,073	1,117	1,152	1,204	1,296	1,362	1,488
New Brunswick	843	862	887	941	962	1,000	1,033	1,115	1,205	1,279	1,408
Quebec	1,055	1,096	1,111	1,142	1,197	1,250	1,292	1,362	1,460	1,548	1,658
Ontario	1,406	1,455	1,478	1,498	1,525	1,594	1,672	1,734	1,850	1,966	2,039
Manitoba	1,154	1,263	1,283	1,322	1,291	1,434	1,428	1,511	1,598	1,708	1,847
Saskatchewan	1,030	1,103	1,140	1,296	1,069	1,463	1,601	1,431	1,659	1,872	1,849
Alberta	1,234	1,334	1,334	1,339	1,370	1,456	1,494	1,520	1,662	1,857	1,951
British Columbia	1,436	1,443	1,483	1,492	1,519	1,574	1,645	1,712	1,865	1,980	2,050
Canada (DBS)	1,208	1,244	1,292	1,317	1,341	1,396	1,455	1,542	1,638	1,749	1,848

Table A-2 — Consumption Expenditure per Capita by Region, Ontario, 1957 to 1967

	1957 Dollars	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
Metropolitan	1,773	1,856	1,832	1,854	1,905	1,958	2,037	2,089	2,197	2,302	2,389
Niagara	1,537	1,525	1,584	1,577	1,604	1,694	1,792	1,878	2,009	2,097	2,198
Eastern Ontario	1,185	1,224	1,258	1,292	1,338	1,392	1,453	1,502	1,596	1,711	1,802
Northeastern Ontario	1,336	1,314	1,353	1,344	1,313	1,370	1,378	1,408	1,474	1,540	1,591
Lake St. Clair	1,237	1,264	1,324	1,359	1,325	1,413	1,514	1,602	1,821	1,858	1,965
Lake Erie	1,099	1,248	1,296	1,319	1,350	1,394	1,520	1,560	1,675	1,810	1,917
Mid-Western Ontario	1,213	1,239	1,289	1,331	1,339	1,444	1,534	1,610	1,710	1,822	1,919
Lake Ontario	1,010	1,056	1,082	1,080	1,083	1,171	1,240	1,268	1,367	1,442	1,519
Northwestern Ontario	1,374	1,356	1,356	1,379	1,376	1,411	1,405	1,484	1,603	1,608	1,660
Georgian Bay	818	885	908	905	935	1,022	1,081	1,172	1,269	1,358	1.
Province	1,406	1,455	1,478	1,498	1,525	1,594	1,672	1,734	1,850	1,966	2,039

**Table A-3 — Provincial Consumption Functions** 

	$a_i$	$b_i$	$\mathbb{R}^2$
Newfoundland	0.0346	0.8898	0.99992
		(0.0329)	
Prince Edward Island	0.0091	0.8736	0.99955
		(0.0386)	
Nova Scotia	0.0615	0.8765	0.99997
		(0.0135)	
New Brunswick	0.0505	0.8773	0.99993
		(0.0374)	
Quebec	0.3769	0.8835	0.99997
		(0.0351)	
Ontario	0.4211	0.8805	0.99997
		(0.0362)	
Manitoba	0.0733	0.8756	0.99996
		(0.0380)	
Saskatchewan	0.0841	0.8680	0.99999
		(0.0409)	
Alberta	0.0878	0.8836	0.99991
		(0.0351)	
British Columbia <sup>1</sup>	0.1101	0.8817	0.99998
		(0.0358)	
Canada (DBS series)	1.5662	0.8720	0.99754
		(0.0393)	

<sup>&</sup>lt;sup>1</sup>Includes Yukon and Northwest Territories.

**Table A-4 — Regional Consumption Functions** 

	$a_{j}$	$b_{j}$	$R^2$
Metropolitan	0.0890	0.8880	0.99988
		(0.0383)	
Nara	0.0532	0.8785	0.99996
		(0.422)	
Eastern Ontario	0.0516	0.8845	0.99999
		(0.0397)	
Northeastern Ontario	0.0231	0.8981	0.99953
		(0.0342)	
Lake St. Clair	0.0365	0.8746	0.99997
		(0.0439)	
Lake Erie	0.0306	0.8778	0.99998
		(0.0425)	
Mid-Western Ontario	0.0247	0.8843	0.99996
		(0.0398)	
Lake Ontario	0.0275	0.8757	0.99990
		(0.0434)	
Lakehead-Northwestern	0.0162	0.8782	0.99989
		(0.0423)	
Georgian Bay	0.0283	0.8714	0.99994
		(0.453)	
Province	0.3855	0.8837	0.99994
		(0.0401)	

**Table A-5 — Consumption Expenditures, 1965** 

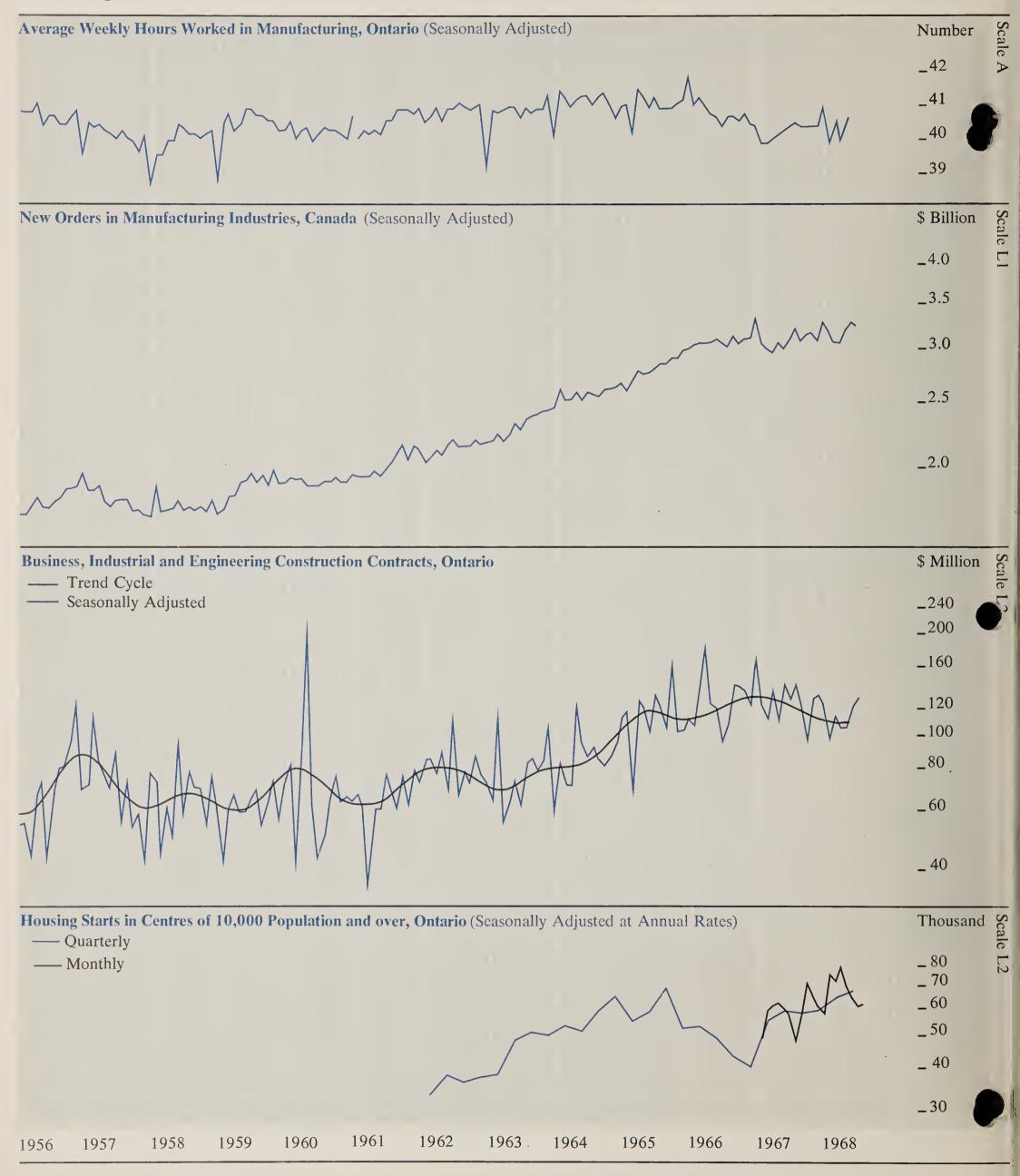
	Set 1	Set 2	Set 3	
	\$ Million			
Newfoundland	513.471	509.565	518.035	
Prince Edward Island	132.562	131.431	133.373	
Nova Scotia	982.391	975.689	990.152	
New Brunswick	745.645	739.859	751.457	
Quebec	8,186.936	8,175.323	8,189.078	
Ontario	12,476.672	12,498.020	12,452.591	
Manitoba	1,546.834	1,540.948	1,554.713	
Saskatchewan	1,588.478	1,584.357	1,592.453	
Alberta	2,418.761	2,416.346	2,419.868	
British Columbia	3,370.076	3,380.409	3,369.183	
Northwest Territories	48.320	48.639	48.341	

Table A-6
Forecast values of consumer expenditure in Ontario by quarters, 1968:

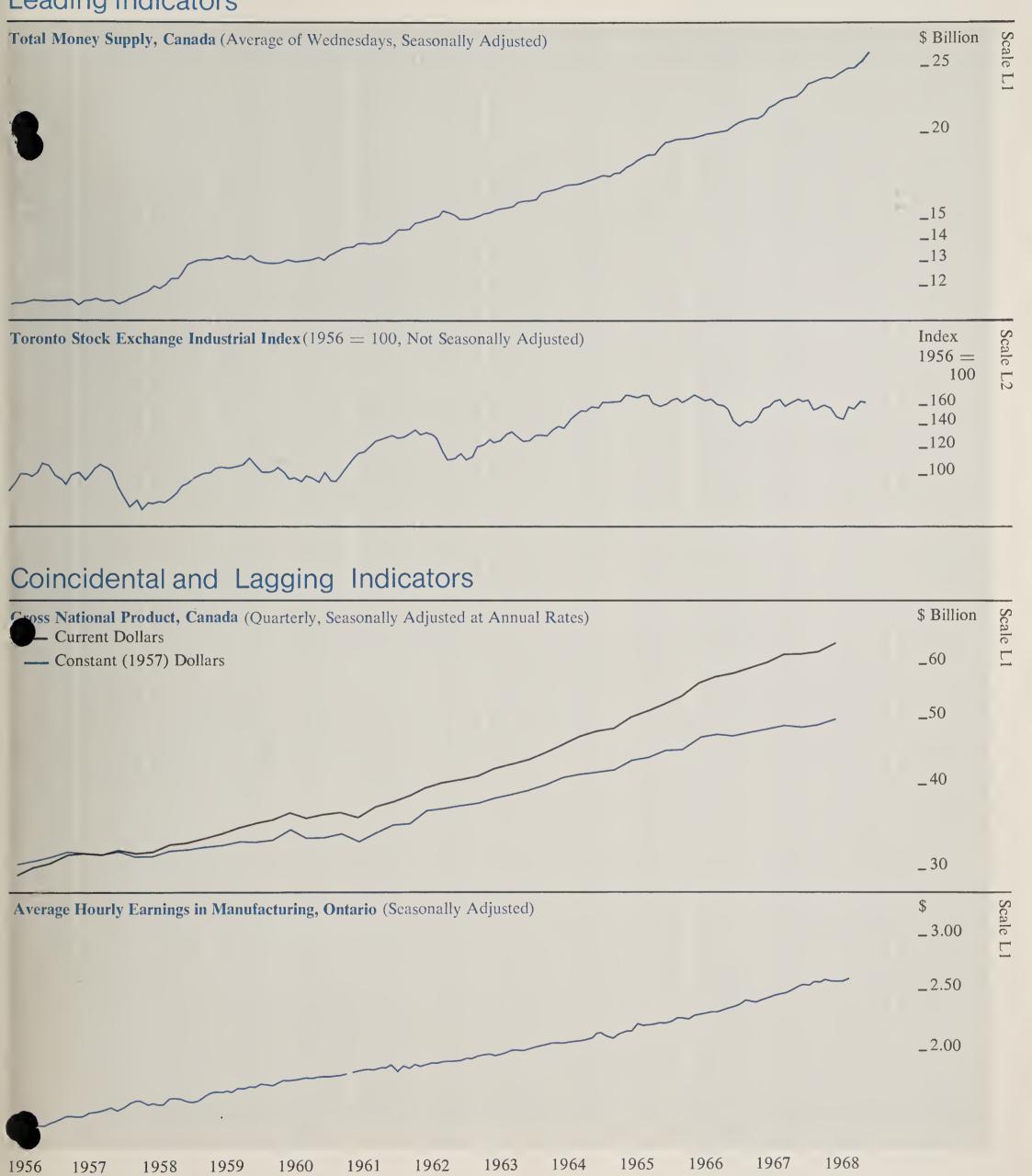
	\$ Billion
First Quarter:	3.67
Second Quarter:	4.14
Third Quarter:	4.00

# Selected Economic Indicators

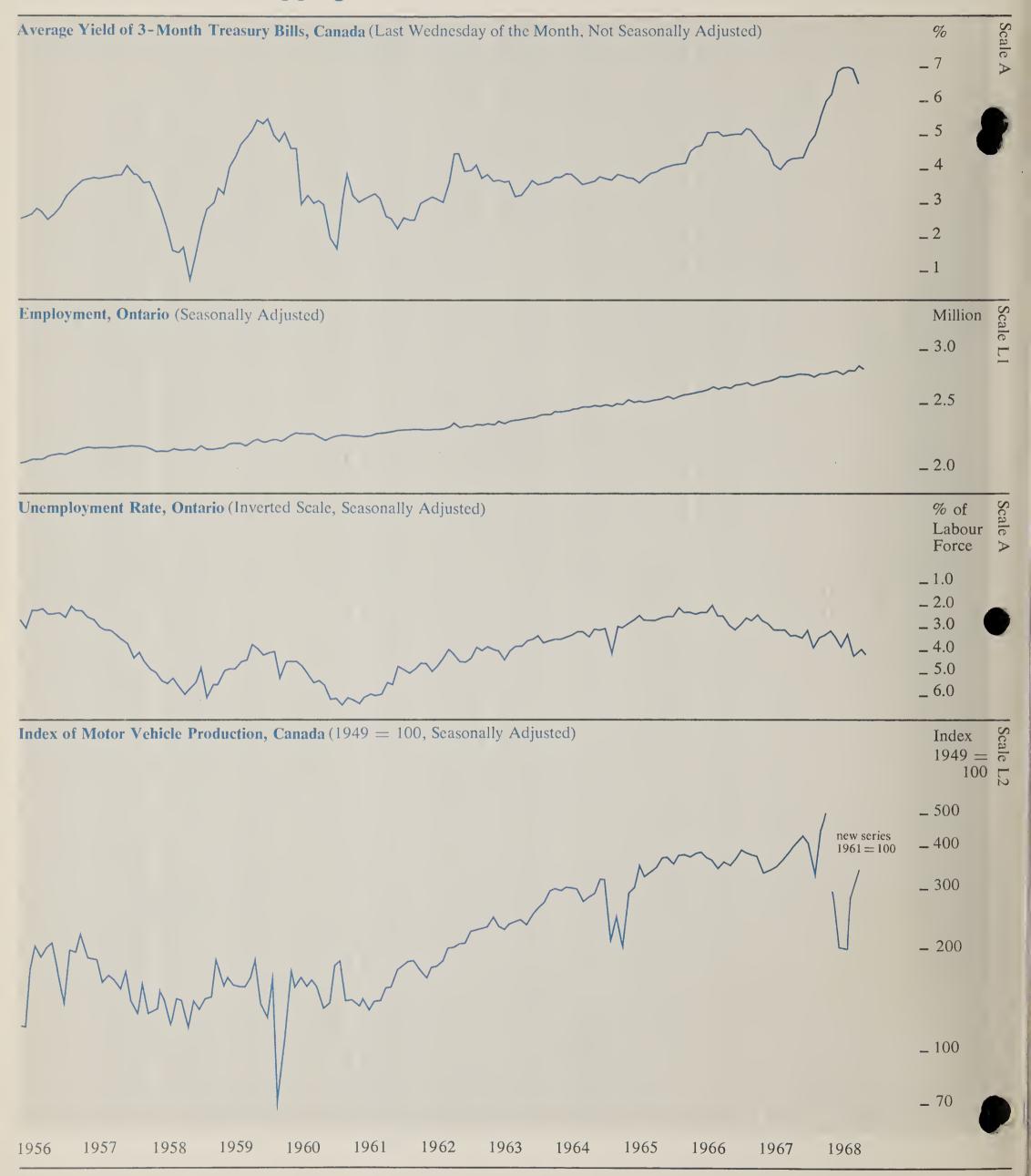
**Leading Indicators** 



# **Leading Indicators**



# Coincidental and Lagging Indicators



# **Economic Indicators**

Seasonally Adjusted

		1967							1968							
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	
ing Indicators		<del></del>														
A rige Weekly Hours Worked in																
Manufacturing	Number	40.4	40.5	40.4	40.4	40.4	40.4	40.9	39.9	40.5	39.6	40.6				
New Orders in Manufacturing Industries <sup>e</sup>	\$ Million	3,117	3,242	3,107	3,161	3,178	3,118	3,308	3,215	3,079	3,078	3,203	3,353	3,264		
Business, Industrial and Engineering													-,	-,		
Construction Contracts	\$ Million	129.0	129.3	121.6	99.2	129.7	133.0	125.4	99.3	114.5	105.1	105.4	122.6	128.7		
Urban Housing Starts	Number	57,800	48,900	57,500	72,100	66,100	61,000	58,700	76,600	72,700	79,400	69,200	63,200		61.90	
Money Supply <sup>c</sup>	\$ Million	22,614	22,797	23,191	23,755	23,839	24,041	24,147	24,149	24,479	24,682	24,972	,		,	
T.S.E. Industrial Index <sup>u</sup>	1956 = 100	164.54	169.66	166.85	168.72	157.39	161.60	162.28	157.43	150.24	146.88	160.43	157.87	166.61	165.9	
Business Failures <sup>u</sup>	Number	59	52	26	34	79	43	73	54	59	87	52	50	46		
Business Failures – Liabilities <sup>u</sup>	\$ Million	2.9	3.2	4.1	2.6	16.6	2.9	24.3	2.6	1.8	5.6	6.4	2.8	6.6		
Coincidental and Lagging Indicators																
Gross National Product <sup>c</sup> (Annual Rate)	\$ Million	62,072			62,372			62,992			64,912			66,396		
Average Hourly Earnings in Manufacturing	\$	2.51	2.55	2.56	2.56	2.58	2.58	2.60	2.59	2.58	2.60	2.67				
3-Month Treasury Bill Ratec,u	Per Cent	4.28	4.32	4.34	4.76	4.95	5.46	5.95	6.29	6.80	6.98	6.99	6.95	6.56		
Cheques Cashed in Clearing Centres <sup>1</sup>	\$ Million	5,154	5,121	4,983	5,133	5,081	5.459	5,485	5,006	4,959	5,313	5,031	5,448			
Retail Trade	\$ Million	761	739	761	777	762	773	767	803	768	780	785	779	804		
Labour Force	000's	2,844	2,862	2,860	2,851	2,853	2,860	2,856	2,857	2,892	2,869	2,890	2,918	2,962	2,94	
Employed	000's	2,750	2,767	2,763	2,762	2,746	2,764	2,762	2,769	2,793	2,760	2,796	2,796			
Unemployed .	000's	94	95	97	89	107	96	94	88	99	109	94	122	118	12	
Unemployed as % of Labour Force	Per Cent	3.3	3.3	3,4	3.1	3.8	3.4	3.3	3.1	3.4	3.8	3.3	4.2	4.0	4.	
Wages and Salaries	\$ Million	1.053	1.064	1,071	1,075	1,070	1,086	1,094	1,109	1,103	1,107	1,130	1,135			
Index of Industrial Employment	1961 = 100	124.4	124.9	124.6	124.6	124.4	125.7	125.8	126.1	124.3	125.2	125.6				
linex of Industrial Production <sup>c</sup>	1961 = 100	151.0	150.5	153.2	152.4		154.5				154.9		158.4	160.1		
Total Manufacturing <sup>c</sup>		150.4	150.7	152.7	152.3	149.9		156.6			154.0		158.1	159.6		
Non-Durables <sup>c</sup>		137.4	136.6	137.4	138.4	137.6	139.3	140.1	138.8	141.9	145.7	143.5	142.8	145.7		
Durables <sup>c</sup>		166.3	168.0	171.4	169.2	165.0	171.8	176.7	170.4	164.8	164.2	172.2	176.8	176.6		
Mining <sup>c</sup>		147.4	142.1	148.3	147.8	149.1	150.8	152.2			152.4		153.1	155.4		
Electric Power and Gas Utilities <sup>c</sup>		161.5	162.0	164.5	160.6	164.0	165.4	165.5	172.9	170.0	166.6		169.1	172.1		
Primary Energy Demand (Annual Rate)	BKWH	50.70	50.64	51.61	50.98	52.41	53.86				54.01		53.81			
Exports (including re-exports) <sup>c</sup>	\$ Million	962.6	914.5	925.2	861.3	956.7	969.4	1,023.0			1,125.7		1,097.2			
Imports <sup>c</sup>	\$ Million	893.5	928.6	900.1	921.8	889.5	882.5	928.7	974.5	1,093.9	970.9	1,026.6	993.0	959.7		
Unclassified Indicators												- 11 -	2.60=	0.554		
Foreign Exchange Reserves <sup>c,u</sup>	U.S. \$ Million	2,169	2,183	2,198	2,221	2,303	2,277	2,268	2,175	2,490	2,244		2,695	2,574		
Industrial Materials Price Indexc,u	1935-39 = 100	256.7	253.0	252.0	251.2	250.1	252.9	254.3	253.5	252.4	253.0		255.5	259.9	1.5-	
Consumer Price Indexc,u	1949 = 100	148.8	150.2	150.9	150.7	150.5	151.0	151.8	152.6	152.7	153.2	154.1	154.2	154.7	155.	

<sup>&</sup>quot;Not seasonally adjusted.

Ontario less Toronto.





# Ontario Economic Review

REFERENCE LUFY

Nov/Dec 1968 Volume 6, Number 6

**Department of Treasury and Economics** 

Hon. Charles S. MacNaughton, Treasurer of Ontario and Minister of EconomicsH. Ian Macdonald, Deputy Minister





# Ontario Economic Review

November/December 1968 Volume 6, Number 6

# The Ontario Economy

# Development of Information Flows for Economic and Financial Policy Formulation

O. M. Schnick, Executive Director, **Department of Treasury and Economics** 

# Selected Economic Indicators

A publication of the **Department of Treasury** and Economics Government of Ontario

Hon. Charles S. MacNaughton Treasurer of Ontario and Minister of Economics H. Ian Macdonald Deputy Minister

The Ontario Economic Review is prepared and cdited bimonthly in the Economie Analysis Branch of the Economic and Statistical Services Division, Department of Treasury and Economies. The review presents articles of interest as well as eurrent information on economic activity in Ontario. Signed articles reflect the opinions of their authors and do not necessarily represent the views of the Department.

Subscriptions can be obtained free of charge by writing the Editor, Ontario Economic Review, Department of Treasury and Economies, Frost Building, Queen's Park, Toronto 5, Ontario.

### **About the Review**

The feature article for the November-December edition of the Ontario Economic Review describes the need for, and development of, a central system of statistical information flows to provide data required for economic and financial planning, as well as informed Government policy formulation.

Some of the statistical applications currently under development include the census of industry surveys, the Census of Forestry, a continuing survey of conventional mortgage registrations and the Municipal Assessment Survey. In the latter, the Province of Ontario is encouraging all muncipalities to adopt a standardized form of dealing with assessment and related statistical data such that a fully computerized system will evolve.

The article represents an expanded version of an address delivered to the Southern Ontario Chapter of the American Statistical Association by Mr. O. M. Schnick, Executive Director of the Economic and Statistical Services Division, Department of Treasury and Economics. The author acknowledges with appreciation the contribution of Mr. E. P. McCoy of the Ontario Statistical Centre and other divisional staff members in the preparation of this article.

**Indicator Charts, Pages 10-12** 

Fluctuations in aggregate economic activity – commonly used to define business cycles – do not necessarily correspond with fluctuations in the individual activities which make up the aggregate. Instead different indicators of economic activity may vary with respect to both their rates of growth and the timing of their peaks and troughs: some may grow more rapidly than others, some change direction sooner.

Those activities which tend to assume a direction in advance of the aggregate – because they relate to future rather than present production – are referred to as leading indicators, and are widely used to antieipate the short-run future eourse of the overall economy. The eharts on pages 10-12 in the Ontario Economic Review present a number of these leading indicators, as well as several which are coincidental to or lag behind the aggregate, to provide for the reader an opportunity to make such an evaluation.

While comparisons of the timing and direction of general changes in the various indicators can readily be made, great care must be exercised in making such a comparison of the amplitude of fluetuations. Of the three vertical seales used – 'A' (arithmetie) and 'L1' and 'L2' (logarithmic scales with one and two cycles respectively over a given vertical distance) – only the logarithmic seales can be used to compare relative changes in different indicators. And this applies only when all series being compared are on the same logarithmic scale. In such a situation all parallel lines represent equal rates of growth, the exact rate of growth being determined by the slope of the line.

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# The Ontario Economy

### **Construction:**

Ontario's construction activity in September and October expressed in terms of contracts awarded (not seasonally adjusted), as recorday Southam Building Guide, increased by 16.9 per cent and 16.1 per cent respectively over the corresponding months in 1967. In September and October, the value of contract awards was \$199.3 million and \$233.3 million respectively compared with \$170.4 million and \$201.1 million in the same months last year.

In September, the latest month for which comprehensive data are available, all construction categories showed significant improvement with the exception of engineering awards which were down by 48.6 per cent from September 1967. Industrial contract awards showed the greatest advance, rising to \$18.4 million, up 84.1 per cent from September 1967. Business construction awards also improved significantly over the same month last year, increasing by 58.2 per cent to \$28.1 million. Residential construction awards totalled \$94.8 million, an increase of 31.1 per cent.

In spite of the increased value in September, the total value of construction awards for the first nine months of 1968 is 5.3 per cent below the corresponding value for 1967.

Ontario's total construction contract awards reached \$1,671 million, down \$93.5 million from the value of \$1,764 million recorded during the same period in 1967. Reduced total values were registered in industrial

awards, down 22.0 per cent to \$189.0 million and engineering contract awards down significantly by 43.7 per cent to \$234.8 million. Buoying up the overall total for the first nine months of 1968 has been the 55.9 per cent increase in business construction awards, rising from \$139.4 million to \$217.4 million and the moderate increases of 8.2 per cent and 5.6 per cent respectively for residential and institutional contract awards.

Large construction awards for the month of September, each valued at \$1.0 million or more totalled \$67.3 million. Some are listed below.

In terms of actual housing construction, the number of dwelling unit starts in Ontario centres of 10,000 population and over was 4,581 in September, 30.8 per cent less than in September 1967. This is also down 30.4 per cent from the August 1968 total of 6,586. However, the cumulative total for the first nine months of 1968 was 49,055, 8.5 per cent higher than the same period last year. September starts in Toronto at 1,705, were down 60.8 per cent from September 1967, but brought the cumulative nine month total to 26,807, an increase of 7.5 per cent over the January to September period last year. Of the larger centres, Brampton, Kingston, London, Ottawa, Kitchener, Windsor and Metropolitan Toronto had fairly substantial cumulative increases, ranging from 99.0 per cent for Brampton to 7.4 per cent for Metropolitan Toronto. The greatest numerical decrease occurred in Hamilton (over 400 or

10.7 per cent) followed by St. Catharines (301 or 24.0 per cent).

Dwelling unit completions in Ontario centres of 10,000 population and over numbered 5,632 in September bringing the nine month total for 1968 to 39,426 – up 10.8 per cent from the January to September period of 1967. With the exception of Kingston, Oshawa, Sault Ste. Marie, Metropolitan Toronto and Windsor most centres have had a greater number of housing completions this year. At September 30, 1968, there were 52,986 dwelling units under construction in Ontario, 17.4 per cent more than the 45,113 units under construction one year earlier.

# Federal Budget - 1968-69

Finance Minister Edgar Benson presented his first budget to Parliament on October 22, 1968. Reviewing the current economic setting Mr. Benson described the Canadian economy as accelerating moderately in a period of widespread prosperity, but not without problems. Encouraged by increases in production, national income, exports and housing investment, Mr. Benson nevertheless expressed serious concern at the extent of unemployment and the rate at which prices are increasing. In addition, he said that although the Canadian balance of trade this year has been better than expected our capital markets continue to be subject to serious strains primarily reflected in high interest rates.

Outlining the federal government's fiscal position Mr. Benson revealed that spending for the current year, at \$10,780 million, is \$480 million above original expenditure intentions proposed in the last budget of November 30, 1967 and \$109 million higher than the figure in the revised estimates in September. Revenues for this year, before taking tax changes into account, are estimated at \$10,050 million or \$135 million less than earlier projections. On this basis the deficit will total \$730 million compared with a deficit of \$486 million indicated by the revised estimates and a deficit of \$40 million or less promised by Mr. Benson five months ago. Faced with this significant discrepancy between expenditures and revenues, the Finance Minister has decided to cover almost the whole of the deficit through borrowing. Tax increases will provide only \$55 million in the remainder of the current year, reducing the proposed deficit to \$675 million. In addition, apart from foreign exchange fund transactions, Mr. Benson predicted that the

Large Construction Awards Placed Recently in Ontario

Location	\$ Million	Description					
Brampton	\$10.0	Shopping Centre					
Chinguacousy Twp.	\$ 1.5	School					
Eastview	\$ 1.3	Home for Aged					
Etobicoke	\$ 2.5	Warehouse and Offices					
Kitchener	\$ 1.7	Apartments					
Mississauga	\$ 2.9	Apartments					
Niagara Falls	\$ 1.2	City Hall					
Ottawa	\$ 7.9	Apartments					
Ottawa	\$30.5	Commercial Complex					
Port Arthur	\$ 2.6	University Centre					
St. Catharines	\$ 3.4	College Addition					
Stratford	\$ 1.4	Nursing Home					
St. Thomas	\$ 1.5	Home for Aged					
Zeronto (metro)	\$23.4	Apartments					
adsor	\$ 1.0	Apartments					

Source: Southam Building Guide.

Government, in the current fiscal year, will have net extra-budgetary requirements of \$600 million. This must be added to the budgetary deficit of \$675 million and yields a total cash requirement of \$1,275 million compared with the maximum of \$750 million promised by the Government in the 1967 fall budget.

In the fiscal year to date, the Government has raised approximately \$600 million in new money, after taking account of refundings of market bonds and redemptions of Canada Savings Bonds. This leaves \$675 million still to be raised. Most of this money can be expected to be raised through the sale of the 1968 series savings bonds which have been offered on very attractive terms.

The major adjustment in the Government's fiscal position has been postponed to the next fiscal year when an \$845 million increase in revenues resulting from tax changes will, according to Mr. Benson, bring the budget into balance.

### The main tax changes are:

- A new Social Development tax of two per cent on personal income will be imposed as of January 1, 1969 and limited to a maximum of \$120 on each taxpayer. This is, in effect, merely an increase in the regular income tax and is approximately equivalent to an increase of nine per cent across the board. The new tax with its limit of \$120 per taxpayer is quite regressive. For a married man with two children earning \$7,000 a year, the cost will be an additional \$86 a year, or a tax increase of 10.2 per cent over the previous year. A man with the same size family but earning \$25,000 a year and subject to the full increase of \$120 will experience a tax increase of only 1.5 per cent. This tax is expected to bring in revenue of \$440 million in the full year, 1969-70. Provincial Treasurer C. S. MacNaughton estimates that approximately \$225 million of that amount will come from Ontario. The revenue from the two per cent surcharge, unlike that from the general income tax, will not be shared with the provinces.
- The Carter recommendations for taxation of life insurance companies are implemented with minor changes. Effective January 1, 1969, with some excep-

tions, the general provisions of the Income Tax Act will apply to life insurance corporations to yield \$40 million in revenues next year, \$5 million for the old age pension fund and \$10 million for the provincial share of tax. In addition, a 15 per cent tax will be imposed on part of the investment income earned by the companies, to yield the federal treasury an additional \$40 million next year. The investment income on insurance policies realized by a policyholder through cashing in or selling a life insurance policy is to be included in his taxable personal income for 1969 and subsequent taxation years.

- Corporation tax payments will again be speeded up to increase revenues next year by \$275 million, \$27 million for the pension fund and \$28 million for the provinces. Instalment payments of corporate income taxes are to start in the first month of a fiscal year. During the transition to this new payment pattern, each company will have to pay two additional monthly instalments within one fiscal year.
- Tax deductible reserves allowed to banks and mortgage loan companies will be cut in half, to raise \$45 million in 1969-70.
- Estate and gift taxes have been reformed to completely remove levies on transactions between husband and wife but additional adjustments have been made to maintain the level of revenue.
- Effective for the 1969 taxation year, expenses paid under a medical insurrance plan will not be allowed as deductions under the Income Tax Act if reimbursement was made under the federal-provincial medical care insurance plan.

### **Employment**

The seasonally adjusted Ontario labour force rose to 2,959 thousand in September, an increase of 3.7 per cent over September 1967. At the same time the number employed reached 2,858 thousand – 3.4 per cent more than twelve months earlier. The rate of unemployment in the Province – 3.4 per cent – was slightly higher than that of 3.1 per cent recorded for September 1967.

In terms of change from the previous month the size of the labour force increased by 22,000 from 2,937 thousand in August to 2,959 in September. The number employed rose to 2,858 thousand from 2,837 thousan increase of 21,000. Unemployment thus rose marginally from 100 thousand to 101 thousand and the rate of unemployment remained unchanged at 3.4 per cent.

Although the pace of Ontario's economic activity quickened in the first months of 1968 in response to sustained consumer demand and brisk export trade, employment failed to expand proportionally and resulted in only moderate employment gains. With the settlement of the international gold crisis, improved Canadian reserves, a strengthened Canadian dollar and a moderate reduction in interest rates business confidence was greatly restored and the outlook for the second half of 1968 indicated higher sales and profit levels. However, to remain competitive in the face of rising labour costs many companies chose to maintain their work forces at present levels and to substitute labour-saving machinery for manpower. In consequence employment gains have been moderate.

In the first nine months of 1968, Ontario's labour force averaged 2,914,000, up 3.0 per cent from the comparable figure for 19t This is a lower growth rate than last year. The reduced rate of labour force growth is expected to continue during the remainder of 1968 and is partially attributable to a smaller influx of immigrants. During the first half of 1968, 45,799 immigrants indicated Ontario as their destination, 21.3 per cent fewer than the same period in 1967. Another factor contributing to reduced labour force growth results from longer attendance in educational institutions of potential labour force participants. Large numbers of students swell labour ranks each summer but as a result of almost static employment conditions this year a larger than usual number may have returned to school this fall in an effort to improve their employment bargaining position.

Statistics from all of Canada indicate that unemployment dropped from 5.1 per cent in August to 4.8 per cent in September. In September of 1967 this rate was 4.1 per cent. Canada's unemployment rate for the first nine months of 1968 has averaged 4.8 cent compared with 4.0 per cent for the sample period last year.

### THE CONFEDERATION DEBATE

As a contribution to greater public understanding of the continuing debate on Confederation, the Department of Treasury and Economics is pleased to announce the availability of the following publications:

# Confederation of Tomorrow Conference Proceedings

This is the full record of the important conference of provincial premiers and prime ministers held in Toronto in November 1967. The meeting, the first of its kind to be open to the mass media, was the prelude to the Federal-Provincial Constitutional Conference in Ottawa in February 1968. The record includes a foreword by the Honourable John P. Robarts, Prime Minister of Ontario, and, as an appendix, the Preliminary Statement of the Province of Quebec.

Available in either English or French. Each \$4.00

## **Confederation of Tomorrow Conference Theme Papers**

The five papers in this volume were prepared to provide some background material for the discussion of the major themes on the agenda of the Conference. The contents did not and do not necessarily represent policies of the Government of Ontario. The degree of interest aroused by the Conference has led to many further requests for the papers. This second edition, which combines in one volume the original and separate English and French versions, is designed to meet this demand. Each \$2.00

### Quebec in the Canada of Tomorrow

This volume is an English version of a special supplement to Le Devoir of June 30, 1967. Mr. Claude Ryan, the editor of Le Devoir, brought together many writers, both French and English

to contribute articles on issues concerning the role of Quebec in Canada. The volume provides a useful insight to the ideas expressed by many Canadians, but especially by French-speaking Canadians, on some of the more contentious contemporary issues in Canada. Each \$4.00

# **Background Papers and Reports of the Ontario Advisory Committee on Confederation**

The studies in this volume, prepared by and for the group of distinguished Canadians who constitute the Advisory Committee, are an important contribution to an understanding of the contemporary problems of Canadian federalism. Among the subjects included are: the Canadian Supreme Court; the provinces and international relations; a federal capital territory; constitutional amendment; changes in Quebec's status.

This collection should be of interest to everyone concerned about Canada's future.

Available in English only, cloth bound. Each \$2.50

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On orders of 20 copies or more of any one volume, there is a 10 per cent discount.

# Development of Information Flows for Economic

and Financial Policy Formulation O. M. Schnick, Executive Director,

### Introduction

With the growing complexity of economic and social interdependence characteristic of an expanding industrial-urban society, the Ontario Government has found it increasingly necessary to assume a multiplicity of research and information-generating functions in support of economic and financial planning. As a consequence, the acquisition and compilation of many diversified series of statistical data at both the provincial and sub-provincial levels assumes growing importance. This information is essential to the development of a factual basis for interpretative economic studies designed to assist in policy formulation and decision-making within the Government. In addition, the continuous flow of statistical and descriptive data made available to the business community and the public at large permits a better understanding and appraisal of the changing economic environment.

This article places considerable emphasis on the development of information flows by the Economic and Statistical Services Division within the Department of Treasury and Economics. Reference is made to traditional sources of statistical data as well as the need to develop new information series and to cultivate new statistical sources both within government and the industrial community under relevant statistical legislation.

The Ontario Statistics Act provides the legal basis for the collection and compilation of statistical information through the Ontario Statistical Centre, a unit within the Economic and Statistical Services Division. The annual Census of Manufactures returns is a prime example of a major information flow developed by the Division in co-operation with the Dominion Bureau of Statistics under the authority of the Federal and Provincial Statistics Acts.

To develop and meet the functional requirements of a smoothly flowing information system the Economic and Statistical Services Division is structured in terms of three major operational units. While the general objectives of the Division are directed toward the development and maintenance of a central system of statistical information flows in support of a program of comprehensive economic analyses, each of the three units has particular functions within the framework of the system.

The Ontario Statistical Centre is primarily involved in the selection of statistical and economic data which meets well defined criteria. Of cardinal importance is the adaptability of data to computer and data processing facilities, while in many instances the Centre is able to modify existing statistical data files to create the degree of standardization necessary in meeting user needs. In order to accomplish the primary role of statistical acquisition, the Centre exerts a co-ordinating influence upon the statistical activities of the departments and agencies within the Ontario Government, thus making possible the development and implementation of well defined statistical standards in government operations. As a result of this activity, the Centre is also in a position to assist these departments in consolidating their statistical needs for presentation to the Dominion Bureau of Statistics at periodic Federal-Provincial conferences on economic statistics. In addition, all current and prospective statistical activities under the Ontario Statistics Act are subject to continuing review and assessment.

The Economic Analysis Branch utilizing information supplied by the Centre, provides economic research services to the Policy Planning Division and other government agencies through the development and application of advanced mathematical and statistical techniques to economic analysis. The Branch is engaged in the design and development of an integrated model of the Ontario economy and its major sub-sectors and as well, will provide detailed and comprehensive long-term economic forecasts based on Input-Output analysis. These forecasts will be supplemented by quantitative assessment of policy alternatives with a view to assisting in the formulation of governmental economic policy.

The Systems and Programming Branch, the third major unit in the Division, is charged with the establishment of an effective interface between the basic statistical operation and the electronic data processing facility. Accordingly, it provides computer systems and programming services in support of economic and financial research within the Department as well as major administrative and budgetary programs having governmentwide application. Keeping in mind the importance of interface with data banks which will be developed at the provincial and federal levels in the future, the unit also assists and participates in the establishment and maintenance of computer programming standards among government departments and agencies.

The need for a continuing expansion of statistical information services is well illustrated by a statement of the Chairman of the Economic Council of Canada: "To a growing extent, the modern economy is coming to run on knowledge and information which needs to be taken into account in economic deci making at all levels, whether by consumers, by private producers and distributors or by governments. Moreover, to use this resource most effectively in our modern society the information inputs cannot in most cases be raw or casual information. To be really useful, information needs to be organized, a processed, a worked-over product; it must be in readily applicable form. It needs to be accurate. It needs to be available in a timely way. And it needs to be relevant to decisions."1

**Department of Treasury and Economics** 

### **Ontario Statistics Act**

While a broad range of economic statistics has been collected on a continuing basis by the Dominion Bureau of Statistics the emphasis, despite the release of numerous provincial aggregates, has been on the presentation of national-type data. In response to the growing need by government and the industrial sector in Ontario for more accurate and detailed statistics at both provincial and sub-provincial levels, legislation was effected to facilitate the acquisition of statistical information at questionnaire level. This legi lation, termed the Ontario Statistics Act 1962-63, enables the Ontario Statistical Centre to collect, compile, analyze, publish and store statistical information.

Specifically, the Act provides for a number of measures designed to improve the province's statistical operations. Firstly, it facilitates and formalizes the province's entry into co-operative statistical arrangements with other government agencies, in particular, the Dominion Bureau of Statistics. Provision is made for either joint participation with the Bureau on a selected questionnaire basis or the acquisition of a duplicate of the original DBS questionnaire such as now pertains with respect to the Census of Manufactures.

The inclusion of confidentiality and punitive clauses in the Ontario Statistics Act comparable with those in the Federal Statistics Act makes possible the development of new data for analytical purposes at provincial and economic regional levels. Statistical information obtained in disaggregated form under the Act thus facilitates the preparation of feasibility studies and the formulation policy measures on a regional and si regional basis. Secondly, the Act enables

the Centre to collect or jointly, with other departments, gather statistical information by questionnaire from field sources.

An additional feature of the Ontario istics Act worth noting is that it provides for a degree of co-ordination in activities carried out under the Act without creating an undue measure of control by the Statistical Centre over the statistical operations of other government departments. Effective co-ordination is indispensable in ensuring efficient statistical operations by Ontario Government agencies under this Act. Understandably, duplication or overlapping of survey work could result in a waste of financial resources as well as placing an unnecessary reporting burden on the respondent.

For these reasons, the Act specified that every proposal or action contemplated under this legislation shall be submitted to the Treasurer of Ontario and Minister of Economics for review and report purposes. This provision eliminates attempts to secure information which can be obtained more efficiently by other means, is not essential to the project concerned, or cannot be processed within the anticipated period of time.

As further statistical programs are developed and carried out under the Act, the creasing flow of statistical data, together with the need to provide timely information in a wide variety of forms for analytical and interpretative purposes, makes mandatory the creation of computerized data flows within the framework of a Central Information System.

### **Central Information System**

An adequately specified Central Information System must be designed to meet the multiple needs of economists and statisticians concerned with the development of analytical techniques such as Input-Output analyses, econometric models and other quantitative procedures. There is no doubt that the foregoing presents a formidable challenge and will require the implementation of the most sophisticated and advanced technology available.

At present, compilations of statistical data are directed at an evaluation of the functional structure of the Ontario economy in terms of prices, employment, output and other key variables. Many of these statistical series are instructed to support specific research proams, the data being obtained by special surveys designed to meet the more immedi-

ate requirements of particular departments or agencies. An examination of the rapid economic expansion in Ontario highlights the need to further improve information flows, particularly in terms of annual statistics. Selected population and labour force characteristics, land use and land inventory data as well as housing information, available for intercensal years on a small urban area basis, represent just a few of the statistical areas to which the Division attaches developmental importance.

Although there is a wealth of administrative data available within the Government organization, it is most desirable that appropriate procedures be developed to make this information available in readily usable and standardized form. At present, differences in collection methods, tabulating procedures and terminology make it difficult to obtain maximum utilization without considerable time and effort. In some cases, administrative data are obtained by sampling procedures designed to arrive at reliable estimates of specific activities. While this method is most useful as a technique for generating statistics in terms of cost consideration, the quality of the output is directly related to the design of the sampling procedure.

The concept of a Central Information System in conjunction with a data bank operating under rigorous standards ensures a higher degree of utilization of data through the provision of maximum flexibility and the maintenance of basic data input in as fine detail or classification as possible. The value of the Central Information System is dependent upon its ability to satisfy the needs of policy planners and administrators. In order to make this possible the system must be able to access a highly diverse type of statistical data at an increasingly fine level of disaggregation. With this objective in mind the Division is giving particular attention to the selective development of three main information flows: economic type data derived from the general industrial sector of the province through the use of field respondent questionnaires mailed to manufacturers in the province on an annual basis; financial data on government expenditure and revenue for budgetary purposes; and data derived from the administrative or operational activities of government departments.

Currently, the Division is placing emphasis on the acquisition of selective economic data required for quantitative economic analyses carried out in the Economic Analysis Branch and the Policy Planning Division. However, it is apparent that economic research must frequently make use of financial and administrative data not readily obtainable from conventional sources. In such cases financial and administrative records maintained by the various departments of government provide a potential source of relevant information. In view of the increasing importance of such data for economic analysis and policy planning, it will be possible with a data bank to place the collection, storage and retrieval of this type of information on a more adequate basis.

The application of electronic data processing techniques will allow the finely disaggregated data inputs to be grouped into as many special purpose classifications and aggregations as required. Loss of information due to confidentiality restrictions will be greatly reduced under the data bank concept. With detailed information stored in a data bank facility, it would be possible through computer program instruction to generate output as required without contravening rules of disclosure. The use of the data bank facility where edits and confidentiality checks relating to disclosure are performed upon fully processed data will facilitate the flow and exchange of information among the various units of government.

In developing the Central Information System, care will be exercised to ensure that all data stored in the bank have been selected in accordance with priorities determined by the requirements of potential users. The development of these selectivity factors will require an understanding of the statistical needs not only of government departments but other agencies as well. The Ontario Statistical Centre, created initially to provide an advisory service for the administration of the Ontario Statistics Act will ensure the acquisition of statistical data to meet these requirements. It is in these two areas primarily that the Centre can assume a vital role in the development of the Central Information System. In brief, the Ontario Statistical Centre is charged with responsibility for the following functions:

- 1. to collect, compile, analyze, publish and store statistical information obtained under the terms of the Ontario Statistics Act,
- 2. To serve as a central clearing house for major economic and financial data,

- 3. to assist the departments of government in collecting, compiling and publishing statistical information,
- 4. to provide liaison between the Ontario Government and the Dominion Bureau of Statistics and coordinate statistical activities among the Provincial Departments.
- 5. to carry out applied statistical research and develop operational standards, and
- 6. to assist in developing a data bank oriented Central Information System designed to provide data for economic and financial policy planning purposes.

Procedures are being designed in terms of data inputs to guide the initial selection and future accessibility of data bank contents. Techniques are also being developed for the conversion of existing files and production data into a form suitable for storage and retrieval, ultimately through the use of remote terminals. Lastly, data transfer to the bank must be effected without loss of information due to screening for confidentiality – a major requirement if the data bank is not to be limited to the inclusion of only non-confidential material, thereby reducing the major value of the system. Therefore, all confidentiality checks will be applied during the output phase rather than in the input stage.

The development of high standards for ensuring quality of data and their maintenance must be considered a major function of the system. With the rise of data banks at both the federal and sub-provincial level, standardization with respect to coding and classification is mandatory if we wish to take full advantage of the information they contain. Our ability to fully utilize such data bank facilities will depend on the development of sound interface techniques as well as criteria for the periodic review of data value in terms of continuing use, keeping in mind the need to purge information where storage may no longer be warranted. In brief, the statistical unit will develop and apply standards consistent with the smooth operation and maintenance of an information system.

Having outlined a few of the major aspects of a Central Information System, it is appropriate to consider the types of service which the potential user might expect from the data bank.

(1) It should provide data in a form as requested in cases where the primary collecting agency is unable to supply either the

- required detail or format. For example, if the user requests tape files while the originals exist in printed statement form, the system must have the capacity to effectively translate the output file to computer tape or to selectively create output records in more than one format.
- (2) In cases where information originates in more than one reporting agency the data bank facility must be able to integrate and produce data in maximum feasible detail, subject to confidentiality and disclosure checks.
- (3) The data bank will be operated in conjunction with a library of computer programs suitable for complex data manipulation and other data processing routines.

The Central Information System as outlined is considered instrumental in the continuous process of policy formulation in areas to which the Government must address itself in the socio-economic environment. The development of quantitative techniques suitable for economic analysis and policy formulation is rapidly surpassing the ability of statistical agencies to provide adequate data. As a consequence, the introduction of new methods for data acquisition, storage, manipulation and access are highly desirable. The proposed information system is not advanced as a solution for all information gaps or deficiencies which may exist but certainly can play a major role in ensuring maximum service capability on the part of the Division.

Recent surveys carried out at various levels of government in both Canada and the United States tend to support an integrated approach in consolidating financial and socio-economic data. In 1965 a survey was carried out by the Ontario Government to assess the need for and capabilities of the various electronic data processing equipment then in use. In this survey an attempt was made to determine the scope and quality of statistics as well as policy planning information required by the various departments of government together with potential computer application.

Among the conclusions yielded by the survey two findings in particular are relevant to the creation and development of an information system namely:

- 1. Many statistical series currently being used lack timeliness and comprehensiveness, and
- 2. Statistics and information conducive to effective decision-making are not always obtainable on demand.

These findings tend to indicate a need for new statistical data and support the development of a more sophisticated information system at provincial level. Recently, the Dominion Statistician announced the crea of a data bank facility at federal level which will provide economic data principally in the form of national and provincial aggregates to potential users in the government and business sectors. Accordingly, for illustrative purposes it might be useful to briefly describe some of the divisional statistical applications currently under development such as the census of industry surveys and the municipal assessment program.

### **Census of Manufactures**

In response to the increasing need for accurate statistical information, the Ontario Statistical Centre has for the past few years been engaged in selectively appraising and developing statistical data which would prove of maximum usefulness to economic analyses. The most comprehensive and widely used survey in the Province of Ontario is the annual Census of Manufactures. This survey relates to basic industrial statistics such as materials and process supplies used, fuel and power consumed, goods purchased for resale, number of employees, salaries and wages commodities sold or produced, and invest tories. At present, the survey embraces over 14,000 establishments, covering 179 industries in 20 major industrial groupings within the province.

These data will form an integral component in a Central Information System, together with other sub-systems developed specifically to meet major economic and statistical requirements. The statistical information, generated by this questionnaire, meets a broad range of needs. For example, the data provide essential inputs for the econometric models, as well as the input-output table being developed in the Economic Analysis Branch. Other branches concerned primarily with economic policy planning, will use the data in the evaluation of economic trends and the formulation of economic policies. It should be emphasized that the formulation of industrial development policy measures for the province is greatly assisted by data derived from the Census of Manufactures.

The Ontario Government commenced the collection of Census of Manufactures reposition that the Dominion Bureau of Statistics several years ago. This decision was made

as a result of strong representation, particularly from the central economic and statistical research units of the Department of Treasury and Economics. On the basis of these representations, the Government authorized the Statistical Centre to enter into an agreement with the Dominion Bureau of Statistics, under authority of the Federal and Provincial Statistics Acts, which enabled the editing, processing and compilation of statistics pertaining to Ontario manufacturing activities.

It was anticipated that the Ontario Statistical Centre, by undertaking this project, would produce more current and comprehensive manufacturing statistics, not only for the province as a whole, but also for smaller geographic or administrative areas within the province. Such detailed and special tabulations require comprehensive editing, and are not readily obtainable from the Dominion Bureau of Statistics. The relative importance of industries on a national scale over time is not necessarily consistent with that at provincial or sub-provincial levels.

Ontario's decision to participate directly in the Census of Manufactures was strengthened by the feeling that joint participation on the part of D.B.S. and Ontario, would have a positive effect in terms of ensuring a high quality of edited reports, a more complete erage of manufacturing establishments and perhaps, a greater sense of co-operation by the respondents. It was also believed that by training and introducing its own field force for maintaining "in person" contact with respondents, Ontario could make a useful contribution toward obtaining quality statistics by ensuring that the limited field staff of the Ontario Statistical Centre would be prepared, when needed, to provide any assistance to respondents experiencing difficulties in the completion and submission of their industry returns.

In this way, a mutual understanding of the problems and needs of both may be more readily achieved. It is the intention of the Ontario Government to encourage and support, where possible, this personal approach in order that the field staff might gain a better understanding of the industrial production process and organizational structure of industry, while the individual firm will gain a new awareness of its role in providing the impetus and factual material upon which both short- and long-term economic projections can be built.

h soliciting statistical data, the respondents must have assurance that the informa-

tion submitted is safeguarded. The Ontario Government, through the Ontario Statistical Centre, is acutely aware of this need. As a result, the organization and data collection techniques have been formulated with the confidentiality aspects of the data receiving prime consideration. By way of explanation, it may be useful to outline the general policy followed.

Individual business firms and other organizations submit to the Ontario Statistical Centre, economic, financial and other data regarding their own business operations for the purpose of producing meaningful industrial statistics. In order to ensure a continuous flow of accurate information, the Centre respects an individual's or firm's right to limit the circulation of information about himself or the corporate entity.

Statistical information collected under the Statistics Act, as for example, the Census of Manufactures, are produced by staff members of the Department, who must take an oath of secrecy as prescribed by this Act. Unless written consent has been obtained from the respondent, any information collected under the Statistics Act, or any other confidential data: (a) will be used for internal purposes only; (b) will not be accessible to other government departments or the general public; and (c) will not be used for extracting and publishing information in such manner that it would identify an individual or company.

However, in many instances an individual or firm could be identified indirectly through deduction of plant location, unusual designation or occupational requirements. Therefore, great care is taken to ensure that no specific information shall be published which would identify an individual person or the production activities of an establishment or firm. To avoid residual disclosure, all statistical tabulations for publication are carefully screened in accordance with procedures developed in co-operation with D.B.S., and designed to prevent identification of respondents.

In the Census of Manufactures, for example, an item is considered to be confidential:

- (a) if fewer than three firms report,
- (b) if there are three reporting firms, any one of which accounts for 75 per cent or more, or any two of which account for 90 per cent or more, of the total.
- (c) if there is any number of reporting firms greater than three, where publication of the figures would result in

disclosure. Presumably, this will occur where one firm accounts for 75 per cent or more, or two firms account for 90 per cent or more, of the total reported value of the item.

There has been, during recent years, a growing awareness by economists of the need for extensive regional planning in the economic field, and accordingly, the Province has developed a plan of well-defined economic regions. The complexity of data required for studies within these areas is beyond the data collecting capabilities of individual groups or organizations and requires the combined efforts of private enterprise and all levels of government which will at the same time ensure the proper application of confidentiality procedures.

Participation in statistical projects with the Dominion Bureau of Statistics, municipalities and private enterprise, helps to meet the pressing statistical requirements of the Department of Treasury and Economics, as well as other departments, by providing more current and comprehensive statistics for both the province and smaller geographic areas than otherwise would be available. In summary, Ontario's statistical activity ensures a program interfaced in terms of provincial and sub-provincial data needs.

### **Census of Forestry**

Closely allied with the Census of Manufactures is the Census of Forestry survey recently formalized by the Department of Treasury and Economics and the Department of Lands and Forests in co-operation with the Dominion Bureau of Statistics. The survey will generate data similar in form to that of the Census of Manufactures and cover an important sector of the Ontario economy. Information will be obtained on the organizational structure of the industry, products and services, employment and payroll for approximately 2,000 establishments. These production units are primarily engaged in cutting pulpwood, logs for lumber, cordwood, fuel wood, telegraph and telephone poles.

The information derived from this source will materially assist in supplying a wealth of factual information pertaining to operations in the woods at both provincial and subprovincial levels. The data will complement inventory studies and other research activities in support of forest management policies developed by the Forestry Department.

The Censuses of Manufactures and Forestry have been mentioned as the type of

selective statistical operation suitable for computer application in developing a Central Information System. Other potential sources of information currently being cultivated will provide new statistical data having relatively high utilization and, accordingly, some reference to these is given below.

### **Municipal Assessment Survey**

The Province of Ontario is currently encouraging all municipalities to adopt a standardized form of collecting, storing, processing, and reporting assessment and related statistical information in such fashion that a fully computerized system will evolve. The Economic and Statistical Services Division, through the Ontario Statistical Centre, is participating with the Department of Municipal Affairs in the design and implementation of this project. As this system becomes operational, the Centre anticipates receiving annually from all assessment jurisdictions in the province, data on population characteristics, land use, and residential and non-residential building inventory.

This basic system was developed by a special committee, organized by the Assessment Branch of the Department of Municipal Affairs with technical assistance provided by the Statistical Centre and the electronic data processing industry. The committee, in the design stages, paid particular attention not only to the needs of assessors and municipal planners, but also considered the long-term requirements of government organizations. Codes, classifications, and standardized forms were designed and built into the framework of this system facilitating optimum computer application. In addition, data processing personnel from larger metropolitan areas, with assistance from the Department of Municipal Affairs and the Centre, developed a standard computer tape layout for use with the new assessment system.

The assessor, who annually visits each property, provides a readily available means for collecting a wide variety of statistics over and above those normally compiled in a decennial census year such as floor and lot area measurements, vehicles per occupancy, and land use data. The statistical information on housing, obtainable from municipal records, is more reliable than information from the decennial census since it is compiled from a total enumeration and dated annually, while information from the decennial census is based upon a sample which, for the cen-

suses of 1951 and 1961, consisted of 20 per cent of all dwellings.

It is anticipated that information from this relatively untapped source of socio-economic data will be incorporated into the Central Information System and, subject to confidentiality restrictions, will become available to various departments for research and planning purposes. There is increasing demand for information of a socio-economic nature on a small area basis for intercensal years. Information from assessment records will help to fulfill this need and, when stored in data bank facilities, this information will be available for studies undertaken, not only by the Department of Treasury and Economics, but also by other government departments such as Municipal Affairs, Highways, Ontario Housing Corporation, Ontario Water Resources Commission and Agriculture and Food.

Upon meeting confidentiality requirements, information from the Municipal Assessment Project will be available for a variety of small area units such as county or district and municipality with its administrative sub-divisions. Such information will assist in the preparation of regional studies in Ontario by providing statistical inputs such as: population and family characteristics, rural area distribution by farm and non-farm units, demographic and other data on urban communities and specified agricultural statistics, including land use. The availability of similar information in a geographic framework is needed by school authorities, city planners, and other researchers. Population data so obtained can be used to modify demographic projections, for planning and other economic studies. Statistical data from this source will provide assistance in developing population series as well as traffic flow projections, extension and routing of proposed new arterial roads, apartment density surveys, and educational studies.

The subsequent acquisition of statistics for any given area will be further enhanced with the development of a geocoding system. When completed, it is anticipated that this system will be used for identifying all assessment data, thus providing permanent land identification in the form of a co-ordinate system based on the smallest possible unit, for example, the property level. Land identified by geocoding is not subject to administrative boundary limitations and may, therefore, be aggregated into any desired area

configuration depending on the unit mesh selected.

### Geocoding

The collection, over time, of incre amounts of data necessary in research and policy planning has made it imperative that the data be standardized and suitably identified. For identification purposes the general procedure currently used is to assign numeric codes to basic area units such as counties and municipalities for reference purposes. Geographic coding procedures are restricted to relatively large units but with the increasing importance attached to small area statistics together with the multiplicity of area configurations required for specific studies, the method has tended to become less satisfactory for many research purposes. With the advances being made in computer technology it is now possible to use a more refined technique by assigning co-ordinates to small units on the basis of a fine spatial mesh. This method known as geocoding assigns coordinates with reference to a given point.

The importance of geocoding is brought sharply into focus when consideration is given to the needs of research personnel engaged in a variety of special area studies. Initially, the economic analyst's concept of a small area depends on the type and nature of the st and while an area of specified size and shape is regarded as an adequate economic unit for some surveys, others may require a unit which differs in both size and shape. Thus the interpretation of a small area is flexible and capable of definition only in terms of a particular study or need at a specific time. What is desired is a co-ordinate system which allows the user to more adequately define both the size and the configuration of the area of interest. Geocoding as a means of identification achieves this by not being restricted to the use of discrete geographical sets such as municipalities, counties or regions and as a consequence allows the researcher flexibility to uniquely define a small area and apply relevant data in meaningful terms. The absence of arbitrary boundary conditions, as they currently exist, will ensure that future changes in the size and shape of the geographic units will have no adverse effect on the ability of the economist to both store and retrieve information from the data bank on a continuing basis.

The development of geocoding will the fore, contribute greatly to the establishm of data banks which are capable of providing

information for extremely small units. The records of each of these units stored in the data bank which contain information on taxation, economic and demographic characteries and other useful series, will be accessible through the use of sophisticated computer programs.

Urban planning bodies will be able to use the information obtained from municipal assessment records and stored in the data bank. In similar fashion those engaged in transportation studies will be able to strengthen the evaluation procedures concerned with public and financial policies. In addition, research in such areas as water resources, public health, education and others will derive benefits from the flexibility in methods of data aggregation brought about through the use of geocoding techniques. Geocoding will fit logically into the Central Information System and will significantly increase the flow of information useful to policy formulation, government research and planning activities.

### **Mortgage Registration**

An agreement has recently been finalized between the Dominion Bureau of Statistics and the Ontario Statistical Centre to conduct a continuing survey of conventional mortarional in January of the coming year. This survey will include all conventional mortages of residential, commercial and industrial properties but will exclude those on leasehold properties as well as all bond and debenture mortgages.

Items of information being considered for the survey questionnaire will include property location, name and address of the mortgagee, coded and classified by eight commercial or industrial activities, as well as the name of the mortgagor, classified by type of borrower. Additional items of statistical value will supply information concerned with the financial terms of the mortgage such as amount, total price of the property, rate of interest, duration of the contract and purpose of the loan.

Since little or no current information is readily available with respect to conventional mortgage lending on the part of individuals or corporations (other than institutional lenders) this project will serve to bridge a gap in the array of useful economic statistics. Data of this nature will better enable economists concerned primarily with the development of financial flow tables to plan such analyses on the basis of a reliable and continuing information flow.

# **Supplementary Information Sources**

Coincident with the generation of information introduced into a central system as a consequence of comprehensive questionnaire surveys, there exists a continuing need for special data to supplement those already available through the central statistical unit. The Economic and Statistical Services Division obtains this information by the use of special field surveys designed to meet specific needs. The special survey may take the form of a direct questionnaire from the Centre to the respondent, while on some occasions the personal visitation technique, utilizing a field force, may be necessary when the survey is technically involved or otherwise not deemed acceptable in the mailed form. Such surveys may involve universal coverage or selective sampling.

The success of this endeavour will be of direct benefit to both the government sector and the business community. Economic indicators will be more meaningful and sophisticated, while economic models will incorporate many variables for which in the past, data were not available. Provincial and regional accounts, similar to National Accounts data, will be developed to provide accurate and timely information relative to economic activity at these levels.

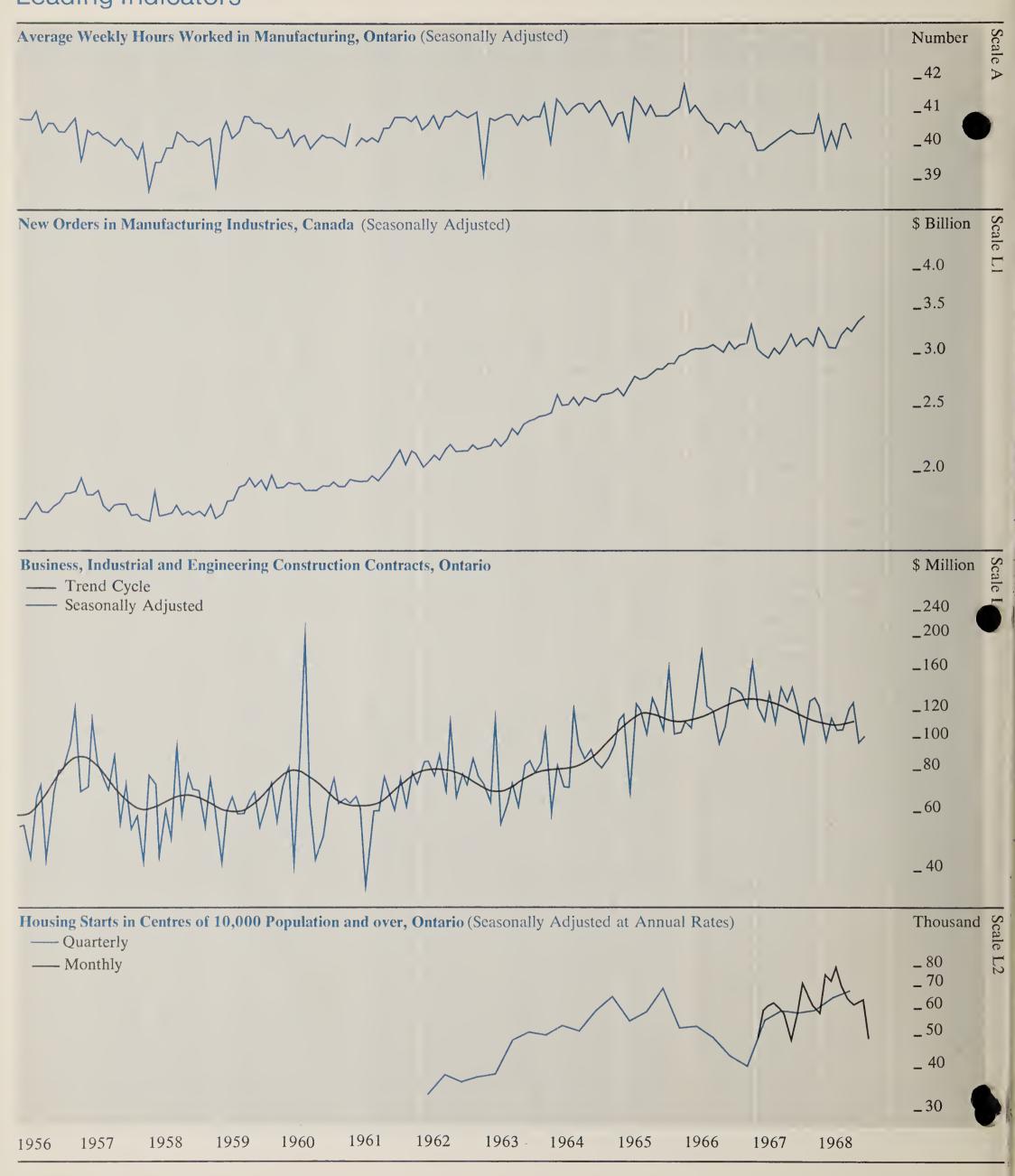
The Economic and Statistical Services Division recognizes the importance of making available as much publishable economic information as possible. Reports will be released on a regular basis supplemented where feasible by others of a special nature such as econometric studies. Current publications by the Division include the Ontario Economic Review which is a bimonthly document and the Ontario Statistical Review, produced on an annual basis. The creation of a strong information interface between government and business is a prime objective of the Division's policy. This service, in its ultimate form, will result in better understanding the many facets of the environment in which economic policy is shaped.

Throughout this article it has been assumed that the rapid change in the present socio-economic environment is likely to accelerate in the future. All the evidence at hand tends to support this assumption. Therefore, continuing review and assessment will be given to methods of collecting, storing and manipulating the data units used in developing sound policies. As the economic structure becomes more complex, new data and more sophisticated techniques must be utilized to support effective policy planning. It is, therefore, intended that a greater integration and flow of economic data be made available through a Central Information System.

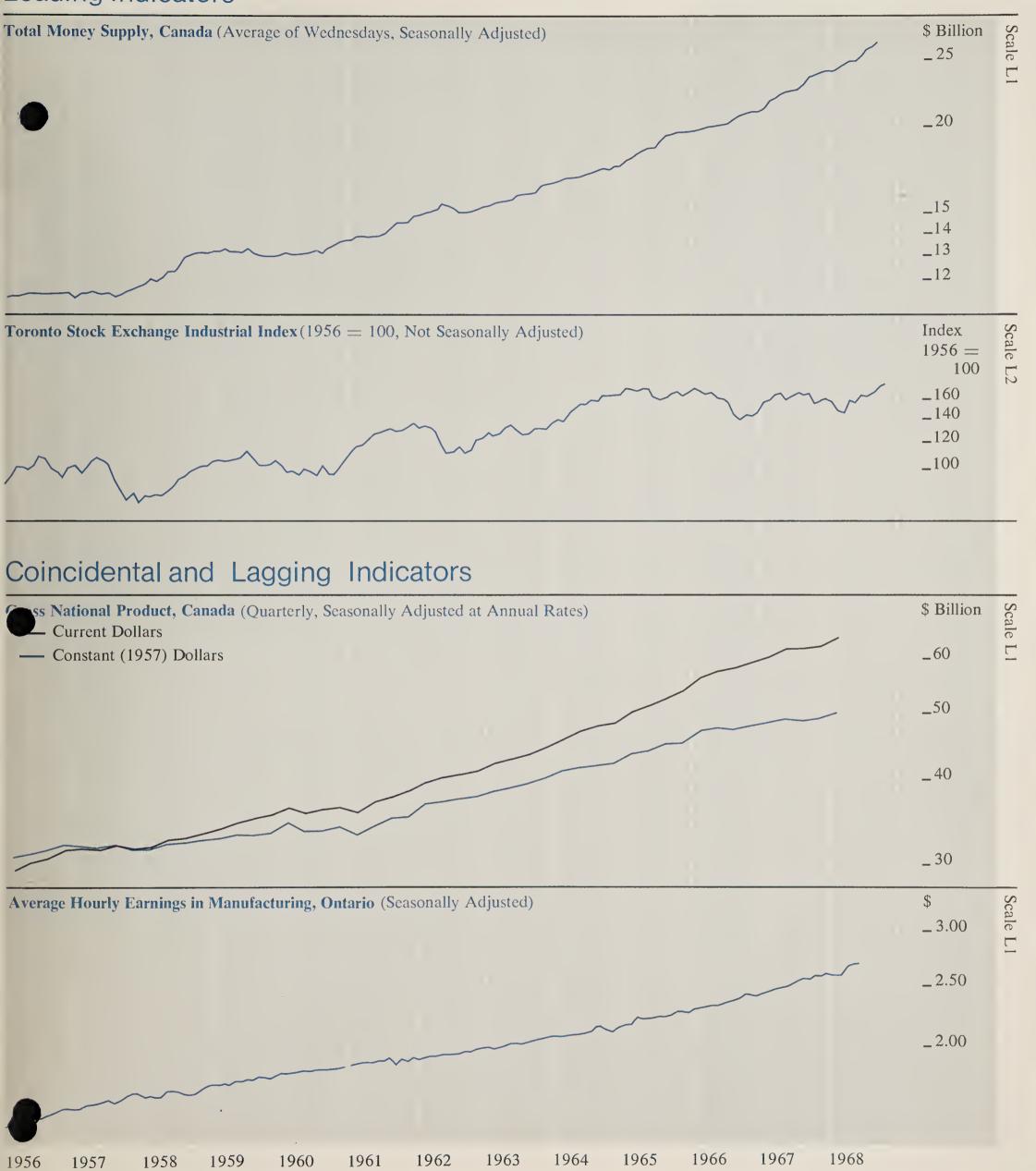
The organization of socio-economic data in the Ontario Government will be conditioned by the implicit information required in a wide range of analytical studies and economic models being initiated by research and planning personnel. Another important feature of the system which has been specifically mentioned is the capability of the computer to perform a broad range of processing and computational tasks. Consolidation of these features into the information system is indicative of the structural form it must take in order to attain stated objectives.

# Selected Economic Indicators

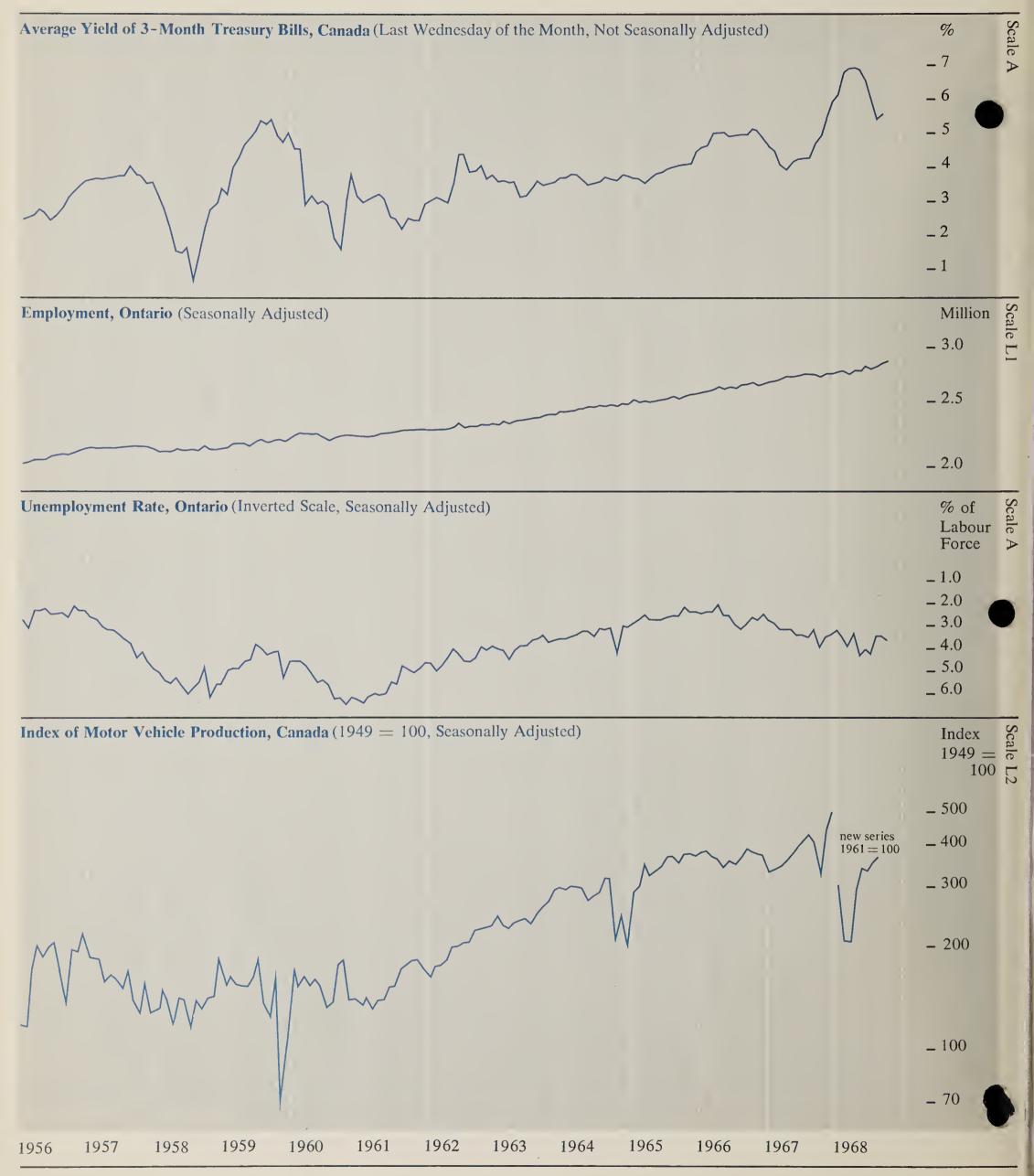
**Leading Indicators** 



# **Leading Indicators**



# Coincidental and Lagging Indicators



# Economic Indicators

Seasonally Adjusted

		1967			1968										
		Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.
Leading Indicators															
A lige Weekly Hours Worked in															
Manufacturing	Number	40.4	40.4	40.4	40.9	39.9	40.5	39.6	40.6	40.7	40.3	40.3			
New Orders in Manufacturing Industries <sup>c</sup>	\$ Million	3,289	3,300	3,242	3,382	3,225	3,163	3,193	3,280	3,365	3,356	3,385	3,426	3,584	
Business, Industrial and Engineering						Í		-,	-,	2,200	5,550	5,500	5,720	5,504	
Construction Contracts	\$ Million	99.2	129.7	133.0	125.4	99.3	114.5	105.1	105.4	122.6	128.7	97.3	101.5		
Urban Housing Starts	Number	72,100	66,100	61,000	58,700	76,600	72,700	79,400					63,900		
Money Supply <sup>c</sup>	\$ Million	23,755	23,839	24,041	24,147	24,149	24,479	24,682			25,400	25,846		26,702	
T.S.E. Industrial Index <sup>u</sup>	1956 = 100	168.72	157.39	161.60	162.28	157.43	150.24	146.88	160.43	157.87	166.61	165.93	169.02	176.37	179.61
Business Failures <sup>u</sup>	Number	34	79	43	73	54	59	87	52	50	46	49	28	36	46
Business Failures - Liabilities <sup>u</sup>	\$ Million	2.6	16.6	2.9	24.3	2.6	1.8	5.6	6.4	2.8	6.6	2.9	1.3	1.5	2.1
															2
Coincidental and Lagging Indicators			***				_	_							
Gross National Product <sup>c</sup> (Annual Rate)	\$ Million	62,372			62,992			64,912			66,396				
Average Hourly Earnings in Manufacturing	\$	2.56	2.58	2.58	2.60	2.59	2.58	2.60	2.67	2.68	2.69	2,68			
3-Month Treasury Bill Ratec,u	Per Cent	4.76	4.95	5.46	5.95	6.29	6.80	6.98	6.99	6.95	6.56	6.03	5.48	5.66	
Cheques Cashed in Clearing Centres <sup>1</sup>	\$ Million	5,133	5,081	5,459	5,485	5,006	4,959	5,313	5.031	5,448	5,199	5,381	6.034	5.00	
Retail Trade	\$ Million	777	762	773	767	803	768	780	785	779	804	840	835	850	
Labour Force	000's	2,851	2,853	2,860	2,856	2,857	2,892	2,869	2,890	2,918	2,962	2,948	2,937	2,959	3,002
Employed	000's	2,762	2,746	2,764	2,762	2,769	2,793	2,760	2,796	2,796	2,844	2,825	2,837	2,858	2,890
Unemployed	000's	89	107	96	94	88	99	109	94	122	118	123	100	101	112
Unemployed as % of Labour Force	Per Cent	3.1	3.8	3.4	3.3	3.1	3.4	3.8	3.3	4.2	4.0	4.2	3.4	3.4	3.7
Wages and Salaries	\$ Million	1,075	1,070	1,086	1,094	1,109	1,103	1,107	1,130	1,135	7.0	7.2	2.4	2.4	3.7
Index of Industrial Employment	1961 = 100	124.6	124.4	125.7	125.8	126.1	124.3	125.2	125.6	125.5	122.3	123.4			
1 .,					12010	12011	12	120.2	12010	120.0	122.5	125			
ex of Industrial Production <sup>c</sup>	1961 = 100	152.4	151.1	154.5	156.8	153.8	153.9	154.9	156.8	158.4	160.1	159.5	159.3	161.1	
Total Manufacturing <sup>c</sup>		152.3	149.9	153.9	156.6	153.0	152.2	154.0	156.4	158.1	159.6	157.7	157.9	160.7	
Non-Durables <sup>c</sup>		138.4	137.6	139.3	140.1	138.8	141.9	145.7	143.5	142.8	146.1	142.1	139.8	142.6	
Durablesc		169.2	165.0	171.8	176.7	170.4	164.8	164.2	172.2	176.8	176.2	177.0	180.0	182.7	
Mininge		147.8	149.1	150.8	152.2	145.8	152.8	152.4	153.3	153.1	154.6	156.1	154.2	153.5	
Electric Power and Gas Utilitiesc		160.6	164.0	165.4	165.5	172.9	170.0	166.6	165.7	169.1	172.1	179.9	179.0	176.8	
Primary Energy Demand (Annual Rate)	BKWH	50.98	52.41	53.86	53.78	55.60	55.15	54.01	53.94	53.81	53.83	55.92	55.69	54.83	
Exports (including re-exports)c	\$ Million	861.3	956.7	969.4	1.023.0	1.077.7	1.140.4	1,125.7		1.097.2	1,115.9	1,063.5	1,103.5	1,111.5	
Imports <sup>c</sup>	\$ Million	921.8	889.5	882.5	928.7		1,093.9		1,026.6	992.2	962.7	927.3	-	1,110.9	
Unclassified Indicators															
Foreign Exchange Reservesc,u	U.S. \$ Million	2,221	2,303	2,277	2,268	2,175	2,490	2,244	2,416	2,695	2,574	2,515	2,590	2,534	
Industrial Materials Price Indexc,u	1935-39 = 100	251.2	250.1	252.9	254.3	253.5	252.4	253.0	251.2	252.0	253.0	253.4	254.2	253.4	256.8
Consumer Price Indexc,u	1949 = 100	150.7	150.5	151.0	151.8	152.6	152.7	153.2	154.1	154.2	154.7	155.6	156.0	156.4	156.8

<sup>&</sup>lt;sup>c</sup>Statistics for Canada. <sup>u</sup>Not seasonally adjusted. <sup>1</sup>Ontario less Toronto.

# Wash Received Colory